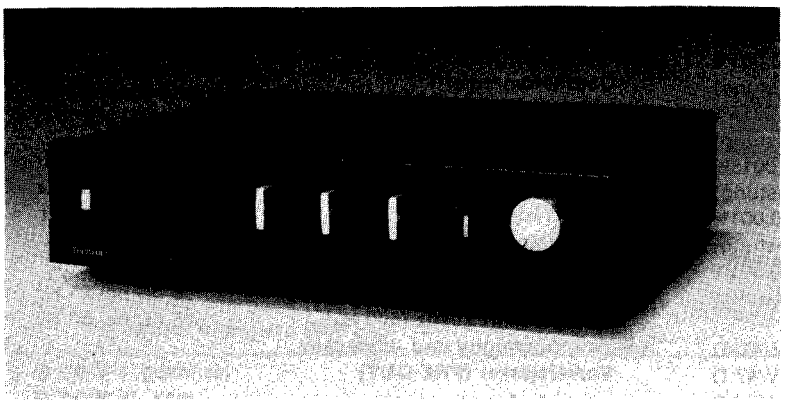
ORDER NO. SD8006-1762

Service Manual

Stereo DC Control Amplifier

SU-A4K

[E], [EG], [EB], [XGH], [XGF], [XE], [XA]



Areas

* [E] and [EG] are available in Scandinavia and European except Belgium, United Kingdom, Switzerland Holland and France.
* [EB] is available in Belgium.
* [XGH] is available in Holland.
* [XGF] is available in France.
* [XE] is available in United Kingdom.
* [XA] is available in Asia Latin America, Middle East and Africa.

TECHNICAL SPECIFICATIONS (DIN 45 500)

Specifications are subject to change without notice for further improvement.

■ AMPLIFIER SECTION

Total harmonic distortion (20 Hz~20 kHz)	
PHONO MM	0.001% (1V output at vol. −30 dB)
	0.001% (5V output at vol. max.)
PHONO MC	0.0015% (1V output at vol. −30 dB)
	0.0015% (5V output at vol. max.)
TUNER, AUX, TAPE	0.001% (1V output at vol. −30 dB)
	0.001% (5V output at vol. max.)
Input sensitivity and impedance	
PHONO 1 MM	2.5 mV/47kΩ
MC	100 μV/47Ω
PHONO 2 MM	2.5 mV/47kΩ
TUNER, AUX, TAPE	150 mV/47kΩ
PHONO maximum input voltage (THD 0.01%)	
MM	300 mV (1 kHz, RMS)
MC	12 mV (1 kHz, RMS)
S/N	
rated output	
PHONO MM	79 dB (90 dB, IHF '66)
MC	73 dB (78 dB, IHF '66, 250 μV input)
TUNER, AUX, TAPE	98 dB (105 dB, IHF '66)
−26 dB output	
PHONO MM	78 dB
MC	70 dB
TUNER, AUX, TAPE	84 dB
Frequency response	
PHONO MM	RIAA ±0.2 dB (20 Hz~100 kHz)
PHONO MM/MC	RIAA ±0.15 dB (20 Hz~20 kHz)
TUNER, AUX, TAPE	DC ~400 kHz (−3 dB) +0 dB, −0.1 dB (DC~20 kHz)
Shelving tone	
SUPER TREBLE (50 kHz)	−10 dB~+10 dB
TREBLE (20 kHz)	−5 dB~+5 dB
BASS (50 Hz)	−5 dB~+5 dB
SUPER BASS (20 Hz, 12 dB/oct)	0 dB~+12 dB
Turnover frequency	
SUPER TREBLE	8 kHz
TREBLE	2 kHz
SUPER BASS (12 dB/oct)	50 Hz~200 Hz continuously adjustable
BASS	500 Hz
Equalizer subsonic filter	20 Hz, −12 dB/oct.
Loudness control (volume at −30 dB)	
Turnover frequency (250 Hz)	+8 dB at 25 Hz
Turnover frequency (500 Hz)	+8 dB at 50 Hz
Output voltage and impedance	
PRE OUT	rated 1V/0.2Ω max. 15V/0.2Ω
REC OUT	150 mV/220Ω
Channel balance, AUX 250 Hz~6,300 Hz	±1.0 dB
Channel separation, AUX 1 kHz	55 dB
Muting	−20 dB

■ GENERAL

Power consumption	70W
Power supply	AC 50 Hz/60 Hz, 110V/120V/220V/240V
Dimensions (W×H×D)	430 × 97 × 360 mm (16-15/16" × 3-13/16" × 14-3/16")
Weight	8.8 kg (19.4 lb.)

Note:
Total harmonic distortion is measured by the digital spectrum analyzer (H.P. 3045 system).

Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

TECHNISCHE DATEN Spezifikationen können infolge von verbesserungen ohne Ankündigung geändert wenrden.

(DIN 45 500)

■ VERSTÄRKERTEIL

Gesamtklirrfaktor (20 Hz~20 kHz)
- **Phono - magnetisch (PHONO MM)** 0,001%
  (1 V Ausgangsspannung bei −30 dB Leistung)
  0,001%
  (5 V Ausgangsspannung bei Höchstleistung)
- **Phono - dynamisch (PHONO MC)** 0,0015%
  (1 V Ausgangsspannung bei −30 dB Leistung)
  0,0015%
  (5 V Ausgangsspannung bei Höchstleistung)
- **Tuner, Aux, Tape** 0,001%
  (1 V Ausgangsspannung bei −30 dB Leistung)
  0,001%
  (5 V Ausgangsspannung bei Höchstleistung)

Eingangsempfindlichkeit und -impedanz
- **Phono 1 - magnetisch (PHONO 1 MM)** 2,5 mV/47kΩ
- **Phono 1 - dynamisch (PHONO 1 MC)** 100 μV/47 Ω
- **Phono 2 - magnetisch (PHONO 2 MM)** 2,5 mV/47 kΩ
- **Tuner, Aux, Tape** 150 mV/47 kΩ

Maximale TA-Eingangsspannung (THD 0,01%)
- **magnetisch (MM)** 300 mV (1 kHz, eff.)
- **dynamisch (MC)** 12 mV (1 kHz, eff.)

Geräuschabstand
- **Nenn Ausgangsspannung**
  - **Phono - magnetisch (PHONO MM)**
    79 dB (90 dB nach IHF '66)
  - **Phono - dynamisch (PHONO MC)**
    73 dB (78 dB nach IHF '66, 250 μV)
  - **Tuner, Aux, Tape** 98 dB (105 dB, nach IHF '66)
- **−26 dB Ausgangsspannung**
  - **Phono - magnetisch (PHONO MM)** 78 dB
  - **Phono - dynamisch (PHONO MC)** 70 dB
  - **Tuner, Aux, Tape** 84 dB

Frequenzgang
- **PHONO MM** RIAA ±0,2 dB (20 Hz ~ 100 kHz)
- **PHONO MM/MC** RIAA ±0,15 dB (20 Hz ~ 20 kHz)
- **Tuner Aux, Tape** DC ~ 400 kHz (−3 dB)
  +0 dB, −0,1 dB (DC ~ 20 kHz)

Shelving-Tonregler
- **Überhöhenregler (50 kHz)** −10 dB ~ +10 dB
- **Höhenregler (20 kHz)** −5 dB ~ +5 dB
- **Baßregler (50 Hz)** −5 dB ~ +5 dB
- **Tiefbaßreglers (20 Hz, 12 dB/Okt.)** 0 dB~+12 dB

Übergangsfrequenz
- **Überhöhenregler** 8 kHz
- **Höhenregler** 2 kHz
- **Tiefbaßreglers (12 dB/Okt.)**
  von 50 Hz bis 200 Hz stufenlos eintellbar
- **Baßregler** 500 Hz

Entzerrer-Tiefenfilter 20 Hz, −12 dB/Okt.

Gehörrichtige Lautstärkekorrektur (Loudness)
(bei −30 dB Ausgangsleistung)
- **Übergangsfrequenz (250 Hz)** +8 dB bei 25 Hz
- **Übergangsfrequenz (500 Hz)** +8 dB bei 50 Hz

Ausgangsspannung und -impedanz
- **Vorverstärker (PRE OUT)** Nennspg. 1 V/0,2 Ω
  max. 15 V/0,2 Ω
- **Aufnahmeausgang (REC OUT)** 150 mV/220 Ω

Kanalabweichung (Aux, 250 Hz ~ 6300 Hz) ±1,0 dB

Übersprechdämpfung (Aux, 1 kHz) 55 dB

Tondämpfung −20 dB

■ ALLGEMEINE DATEN

Leistungsaufnahme 70 W

Netzspannung
Wechselstrom 50 Hz/60 Hz, 110V/120V/220V/240V

Abmessungen (B×H×T) 430 × 97 × 360 mm

Gewicht 8,8 kg

Bemerkung:
Der Gesamtklirrfaktor wurde mit einem digitalen Rauschspektrometer (Anlage H.P. 3045) gemessen.

DONNEES TECHNIQUES Sujet à changment sans préanis.

(DIN 45 500)

■ SECTION AMPLIFICATEUR

Distorsion harmonique totale (20 Hz~20 kHz)
- **PHONO, AIMANT MOBILE (PHONO MM)** 0,001%
  (sortie de 1V à vol. −30 dB)
  0,001%
  (sortie de 5V à vol. max.)
- **PHONO, BOBINE MOBILE (PHONO MC)** 0,0015%
  (sortie de 1V à vol. −30 dB)
  0,0015%
  (sortie de 5V à vol. max.)
- **SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)**
  0,001%
  (sortie de 1V à vol. −30 dB)
  0,001%
  (sortie de 5V à vol. max.)

Sensibilité et impédance d'entrée
- **PHONO 1, AIMANT MOBILE (PHONO 1 MM)**
  2,5 mV/47kΩ
- **PHONO 1, BOBINE MOBILE (PHONO 1 MC)**
  100 μV/47Ω
- **PHONO 2, AIMANT MOBILE (PHONO 2 MM)**
  2,5 mV/47kΩ
- **SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)**
  150 mV/47kΩ

PHONO (tension d'entrée maximum, THD 0,01%)
- **AIMANT MOBILE (MM)** 300 mV (1 kHz, RMS)
- **BOBINE MOBILE (MC)** 12 mV (1 kHz, RMS)

Signal/Bruit
pour la tension de sortie
- **PHONO, AIMANT MOBILE (PHONO MM)**
  79 dB (90 dB, IHF '66)
- **PHONO, BOBINE MOBILE (PHONO MC)**
  73 dB (78 dB, IHF '66, 250μV input)
- **SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)** 98 dB (105 dB, IHF '66)

pour la tension de sortie −26 dB
- **PHONO, AIMANT MOBILE (PHONO MM)** 78 dB
- **PHONO, BOBINE MOBILE (PHONO MC)** 70 dB
- **SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)** 84 dB

Réponse de fréquence
- **PHONO MM** RIAA ±0,2 dB (20 Hz~100 kHz)
- **PHONO MM/MC** RIAA ±0,15 dB (20 Hz~20 kHz)
- **SYNTONISATEUR, AUX, BANDE (TUNER, AUX, TAPE)**
  DC~400 kHz (−3 dB)
  +0 dB, −0,1 dB (DC~20 kHz)

Tonalité shelving
- **ULTRA-AIGUËS (50 kHz)** −10 dB~+10 dB
- **AIGUËS (20 kHz)** −5 dB~+5 dB
- **BASSES (50 Hz)** −5 dB~+5 dB
- **ULTRA-BASSES (20 Hz, 12 dB/oct)** 0 dB~+12 dB

Fréquence charnière
- **ULTRA-AIGUËS** 8 kHz
- **AIGUËS** 2 kHz
- **ULTRA-BASSES (12 dB/oct)**
  50 Hz~200 Hz réglable en continu
- **BASSES** 500 Hz

Filtre subsonique d'égalisateur 20 Hz, −12 dB/oct.

Compensateur physiologique (volume à −30 dB)
- **Fréquence charnière (250 Hz)** +8 dB à 25 Hz
- **Fréquence charnière (500 Hz)** +8 dB à 50 Hz

Tension de sortie et impédance
- **PREAMPLI (PRE OUT)** nominale 1V/0,2Ω
  maxi.15V/0,2Ω
- **SORTIE ENREGISTREMENT (REC OUT)** 150 mV/220Ω

Equilibrage des canaux, AUX 250 Hz~6 300 Hz ±1,0 dB

Séparation des canaux, AUX 1 kHz 55 dB

Réglage silencieux −20 dB

■ DIVERS

Consommation 70W

Alimentation CA 50 Hz/60 Hz, 110V/120V/220V/240V

Dimensions (L×H×Pr) 430 × 97 × 360 mm

Poids 8,8 kg

Remarque:
On mesure la distorsion harmonique totale au moyen d'un analyseur de spectre digital (Système H.P. 3045).

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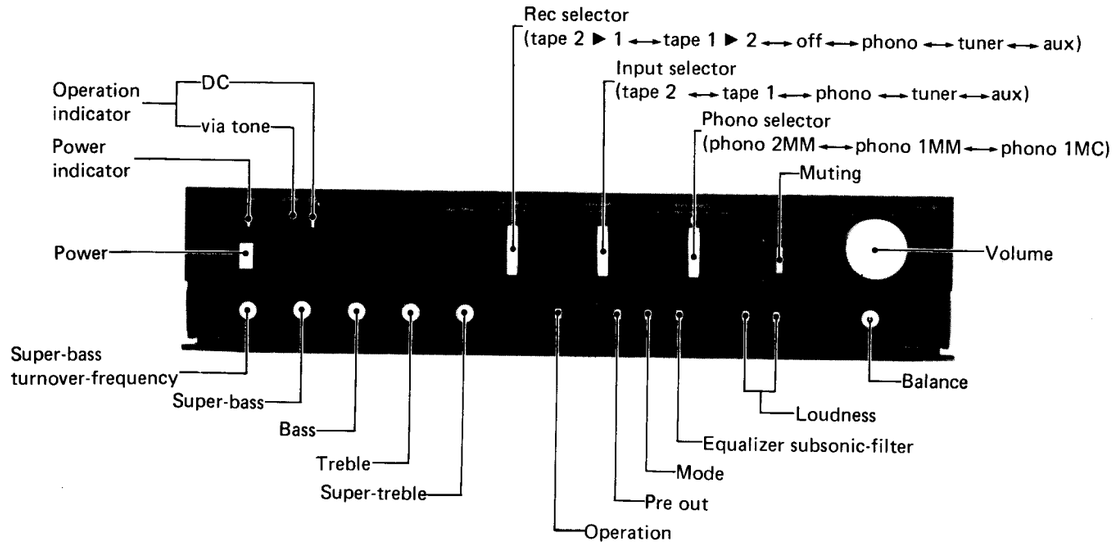
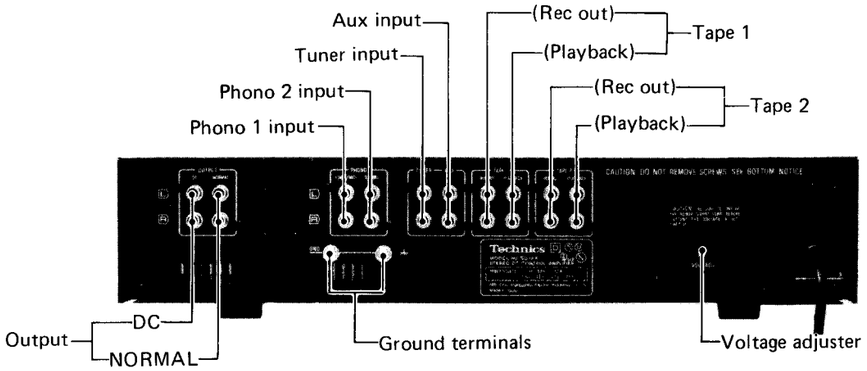
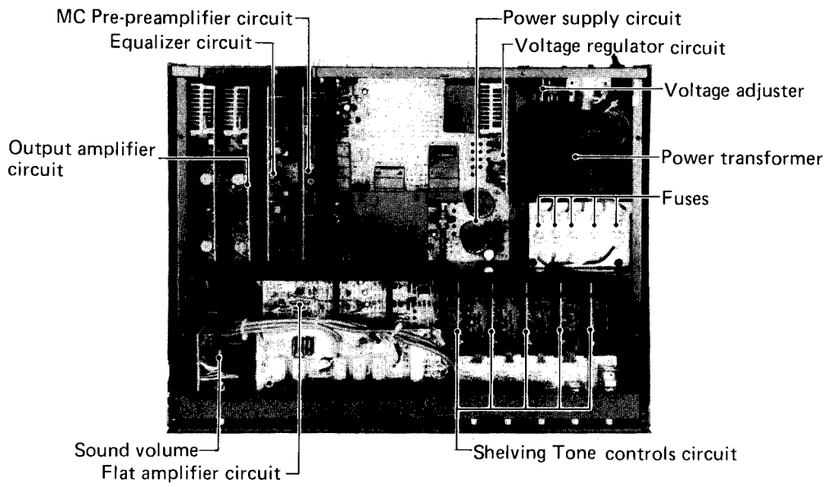
■ LOCATION OF CONTROLS





• The products for destination [XA] is equipped with AC outlet.



DISASSEMBLY INSTRUCTIONS

• How to remove the knobs (Refer to Fig. 1.)

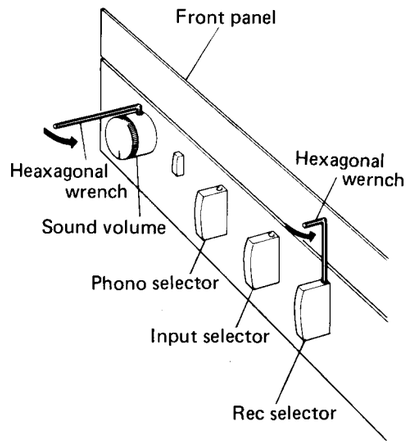
1. Remove the phono switch, input selector switch and record output switch by using M3 hexagonal wrench.
2. When removing the sound volume knob, use a hexagonal rod spanner for M4 screws.

• How to remove the cabinet

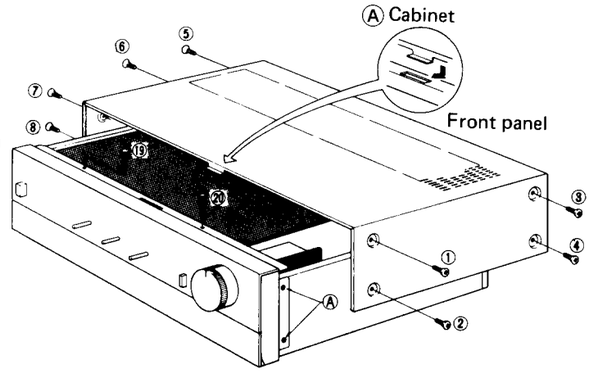
1. Remove the 8 setscrews (① ~ ⑧ in Fig. 2) on the side of the cabinet. Slightly push the cabinet and lift it.
2. To install the cabinet, fit the projection of the cabinet into the square hole before tightening the setscrews.

• How to remove the bottom board

Remove the 10 setscrews (⑨ ~ ⑱ in Fig. 3) of the bottom board, and the bottom board can be removed.



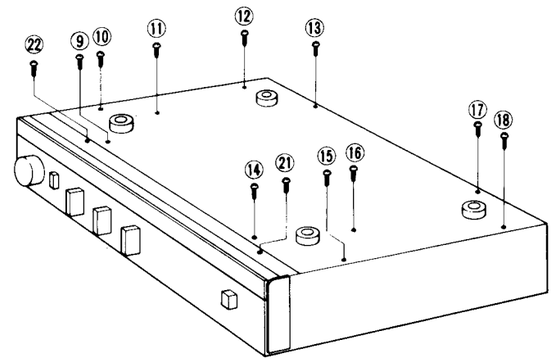
[Fig. 1]



[Fig. 2]

• How to remove the front panel

1. Remove the 3 knobs (phono, input, record output switches). (Refer to "How to remove knobs".)
2. Loosen the setscrews of front panel side plate (Ⓐ in Fig. 2).
3. Remove the 4 setscrews of front panel (⑲ ~ ⑳ in Fig. 2; ㉑ , ㉒ in Fig. 3), then pull the front panel toward you.



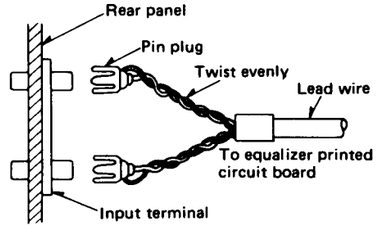
[Fig. 3]

■ PRECAUTIONS FOR REPAIR

The S/N ratio of the equalizer circuit is slightly influenced due to lead wire treatment and coil installation.

• Lead wire treatment

When the pin plug and the lead wire are changed, evenly twist the lead wires of phono 1·2 and solder them to the pin plugs. This will work to decrease hum level.
(Refer to Fig. 4.)

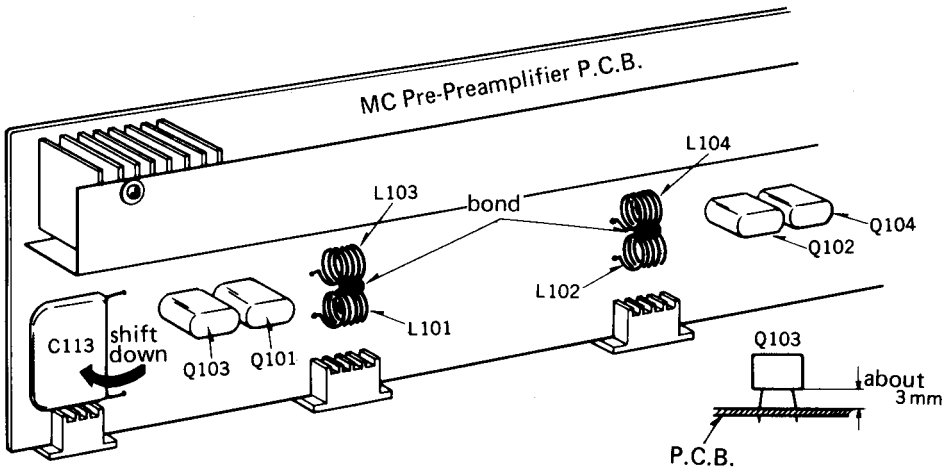


[Fig. 4]

• Coil treatment

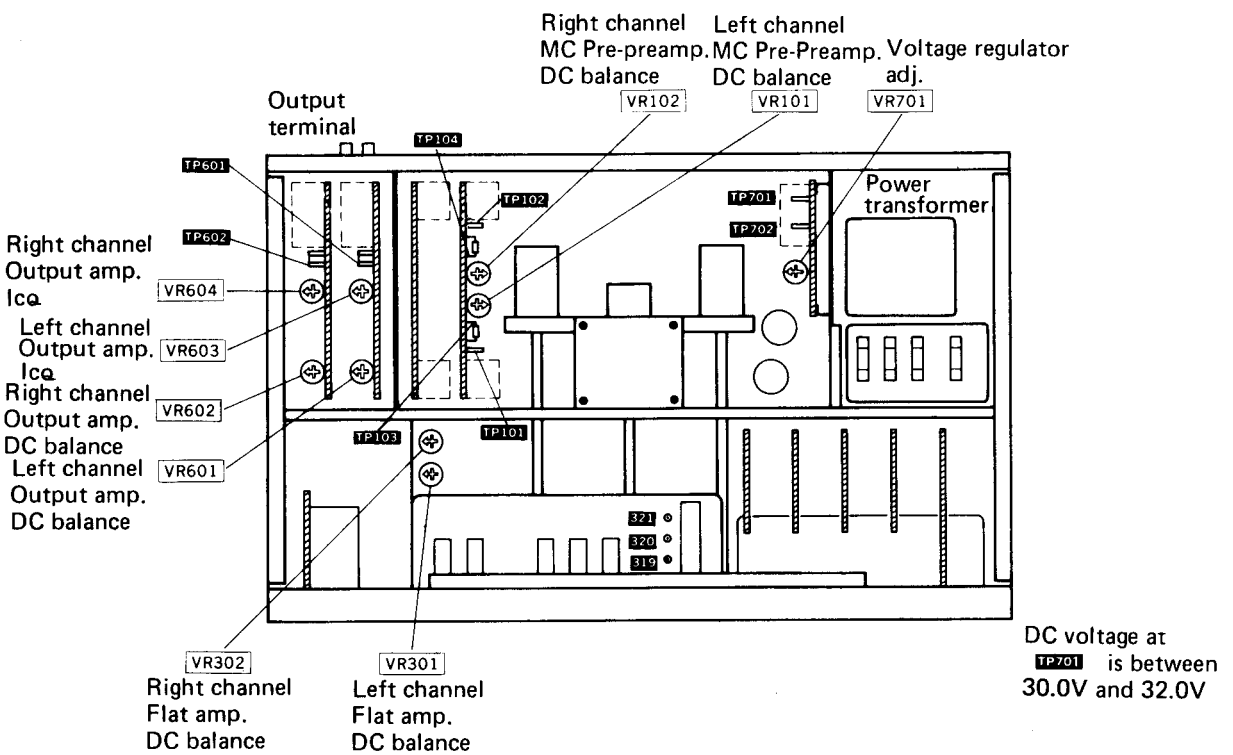
When the MC preamplifier circuit coils (L101 & L103, L102 & L104) are replaced, apply bond between the coils as illustrated in Fig. 5. This will work to obtain hum cancelling effects.

Note: When inserting the printed board with parts (C113 & Q103) installed on the printed board of MC preamplifier circuit, take care so that the board will not touch the electrolytic capacitors and switches.
1) Shift down C113 toward the printed board side.
2) Adjust the leg length of Q103 to about 3mm.



[Fig. 5]

■ ADJUSTING POINTS



(Gleichstromspannung am Testpunkt TP701 zwischen 30.0V und 32.0V)

(La tension CC à TP701 est 30.0V et 32.0V)

■ ADJUSTING INSTRUCTIONS — ENGLISH

• Setting of controls and instruments to be used.

1. Operation switch . . . . . DC
2. Output cut-off switch . . . . . on
3. Sound volume . . . . . "∞" (minimum)
4. DC voltmeter (capable to measure 1mV)

No.	Adjustments	DC voltmeter connections	Adjusting Point	Adjustment Procedure
1	Voltage regulator	Between TP702 and ground	VR701	* Turn voltage regulator semi-fixed resistor VR701 to minimum. (counterclockwise direction) * Adjust VR701 to −31.0V.
2	DC Balance (MC Pre-Preamplifier)	L channel Between TP101 and TP103 (minus probe) R channel Between TP102 and TP104 (minus probe)	VR101 (L channel) VR102 (R channel)	* Adjust VR101 (L ch) and VR102 (R ch) to obtain a minimum reading, using the 300mV range on the DC voltmeter.
3	DC Balance (Flat amplifier)	L channel Between 319 and 320 (minus probe) R channel Between 321 and 320 (minus probe)	VR301 (L channel) VR302 (R channel)	* Adjust VR301 (L ch) and VR302 (R ch) to obtain a minimum reading, using the 3mV range on the DC voltmeter.
4	DC Balance (Output amplifier)	DC Output terminals	VR601 (L channel) VR602 (R channel)	* Adjust VR601 (L ch) and VR602 (R ch) to obtain a minimum reading, using the 1mV range on the DC voltmeter.
5	Icq	L channel TP601 R channel TP602	VR603 (L channel) VR604 (R channel)	* Turn Icq semi-fixed resistor VR603, VR604 to minimum. (counterclockwise direction) * Adjust VR603 (L ch) and VR604 (R ch) to approx. 7mV after ten minutes warm-up time.

■ EINSTELLUNGSANWEISUNGEN — DEUTSCH

• Einstellung der zu benutzenden Regler und Instrumente

1. Funktionsschalter . . . . . "DC"
2. Ausgangssignal-Unterbrechungsschalter . . "on"
3. Lautstärke . . . . . "∞" (Minimalstellung)
4. Gleichstromvoltmeter. . . . . 1mV Meßbereich erforderlich

Nr	Einstellungen	Gleichstromvoltmeter-verbindungen	Einstellungspunkte	Einstellungsvorgang
1	Spannungsregler	Zwischen TP702 und Masse.	VR701	* Die spannungsregler halbfesteingestellten Widerstände VR701 auf Minimalstellung drehen. (Entgegen dem Uhrzeigersinn) * VR701 auf −31.0V abstimmen.
2	Gleichstrom balance	L-Kanal Zwischen TP101 und TP103 (Minustest) R-Kanal Zwischen TP102 und TP104 (Minustest)	VR101 (L-Kanal) VR102 (R-Kanal)	* Durch Benutzung des 300mV-Bereiches des Gleichstromvoltmeters, den regelbaren Widerständ VR101 (L-Kanal) und VR102 (R-Kanal) auf minimalen Wert einstellen.
3		L-Kanal Zwischen 319 und 320 (Minustest) R-Kanal Zwischen 321 und 320 (Minustest)	VR301 (L-Kanal) VR302 (R-Kanal)	* Durch Benutzung des 3mV-Bereiches des Gleichstromvoltmeters, dem regelbaren Widerständ VR301 (L-Kanal) und VR302 (R-Kanal) auf minimalen Wert einstellen.
4		Gleichstromausgangs-buchsen	VR601 (L-Kanal) VR602 (R-Kanal)	* Durch Benutzung des 1mV-Bereiches des Gleichstromvoltmeters, dem regelbaren Widerständ VR601 (L-Kanal) und VR602 (R-Kanal) auf minimalen Wert einstellen.
5	Icq	L-Kanal TP601 R-Kanal TP602	VR603 (L-Kanal) VR604 (R-Kanal)	* Die Icq halbfesteingestellten Widerstände VR603 und VR604 auf Minimalstellung drehen (Entgegen dem Uhrzeigersinn). * VR603 (L-Kanal) und VR604 (R-Kanal) auf ungefähr 7mV, nach 10 Minuten Anwärmezeit, einstellen.

INSTRUCTIONS DE REGLAGE — FRANÇAUS

● Réglage des commandes et instruments á utillier

1. Sélecteur de fonctionnement . . . . . ''DC''
2. Commutateur de coupure de sortie . . . ''on''
3. Volume du son . . . . . ''∞'' (minimum)
4. Voltmètre CC (pouvant mesurer 1mV)

No.	Réglages	Connexions du voltmetre CC	Point de réglage	Procédé de réglage
1	Régulateur de potential	Entre TP702 et la masse	VR701	* Tourner les résistances VR701 semifixes regulateur de potentiol sur le minimum. (à gauche) * Régler les VR701 sur −31.0V.
2	Equilibre CC	Canal gauche Entre TP101 et TP103 (sonde au moins) Canal droit Entre TP102 et TP104 (sonde aumoins)	VR101 (Canal gauche) VR102 (Canal droit)	* Régler VR101 (Canal gauche) et VR102 (Canal droit) pour obtenir une lecture minimale, à l'aide de la gamme de 300mV sur le voltmètre CC.
3		Canal gauche Entre 319 et 320 (sonde au moins) Canal droit Entre 321 et 320 (sonde au moins)	VR301 (Canal gauche) VR302 (Canal droit)	* Régler VR301 (Canal gauche) et VR302 (Canal droit) pour obtenir une lecture minimale, à l'aide de la gamme de 3mV sur le voltmètre CC.
4		Bornes de sortie CC	VR601 (Canal gauche) VR602 (Canal droit)	* Régler VR601 (Canal gauche) et VR602 (Canal droit) pour obtenir une lecture minimale, à l'aide de la gamme de 1mV sur le voltmètre CC.
5	Icq	Canal gauche TP601 Canal droit TP602	VR603 (Canal gauche) VR604 (Canal droit)	* Tourner les résistances VR603, VR604 semifixes Icq sur le minimum. (à gauche). * Régler VR603 (Canal gauche) et VR604 (Canal droit) sur env. 7mV aprés 10 minuts de temps de chauffage.

REPLACEMENT PARTS LIST...Electric Parts

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacturer be used for safety.

Ref. No.		Part No.	Part Name & Description
ITEGRATED CIRCUITS			
501, 502		SVINJM4559DS	IC, Super Treble and Treble Buffer
503 ~ 507		AN6552F	IC, Super Bass and Bass Buffer, Super Bass Filter
RANSISTORS			
01 ~ 104, 201, 202		2SK146–BL	Transistor, Differential Amplifier
05 ~ 108, 702, 705		2SC1815–O	Transistor, Current Stabilizer
09 ~ 112		2SA978–G	Transistor, MC Pre-Preamplifier (Use in ranks G or H)
13, 114		2SC1567–Q	Transistor, MC Pre-Preamplifier (Use in ranks Q, R or S) } Use in pair ranks as same as Q113 ~ 115 and Q116.
15, 116		2SA794–Q	Transistor, MC Pre-Preamplifier (Use in ranks Q, R or S)
03, 204, 303		2SC2291N–G	Transistor, Current Stabilizer (Use in ranks F or G)
04, 603, 604		2SA995N–G	Transistor, Current Mirror (Use in ranks F or G)
05, 206, 305		2SA999L–F	Transistor, Equalizer Amp., Flat Amp. and Output Amp.
06, 605, 606			
07, 208, 307			
310, 607 ~ 610			
11, 212, 311, 12, 611, 612		2SA921–T	Transistor, Equalizer Amp., Flat Amp. and Output Amp.
13 ~ 216		2SC1885–R	Transistor, Current Stabilizer (Use in ranks Q, R or S)
17, 218		2SC2592–R	Transistor, Equalizer Amplifier (Use in ranks Q, R or S) } Use in pair ranks as same as Q217 ~ 219 and Q220.
19, 220		2SA1112–R	Transistor, Equalizer Amplifier (Use in ranks Q, R or S)
01, 302		SVIUPA68HG–L	Transistor, Differential Amplifier

Ref. No.		Part No.	Part Name & Description
Q313 ~ 316		2SC1980–T	Transistor, Current Stabilizer (Use in ranks R, S or T)
Q317, 318		2SC2631–R	Transistor, Flat Amplifier (Use in ranks Q, R or S) } Use in pair ranks as same as Q317 ~ 319 and Q320.
Q319, 320		2SA1123–R	Transistor, Flat Amplifier (Use in ranks Q, R or S)
Q321, 322		2SC2592–R	Transistor, Flat Amplifier (Use in ranks Q, R or S) } Use in pair ranks as same as Q321 ~ 323 and Q324.
Q323, 324		2SA1112–R	Transistor, Flat Amplifier (Use in Q, R or S)
Q325, 703		2SD836–Q	Transistor, Regulator (Use in ranks P, Q or R)
Q326, 704		2SB750–Q	Transistor, Regulator (Use in ranks P, Q or R)
Q401, 402, 425 426, 451, 452 457, 476		2SA798A–G2	Transistor, Differential Amplifier
Q403, 404, 427, 428, 453, 454, 477, 478, 613, ~ 616		2SC1980–T	Transistor, Tone Amplifier and Current Stabilizer (Use in ranks R, S or T)
Q405, 406, 429, 430, 455, 456, 479, 480, 625, 626		2SC2631–R	Transistor, Tone Output Amplifier and Output Amplifier (Use in ranks Q, R or S) } Use in pair ranks as same as Q405 ~ 627 and Q628.
Q407, 408, 431, 432, 457, 458, 481, 482, 627 628		2SA1123–R	Transistor, Tone Output Amplifier and Output Amplifier (Use in ranks Q, R or S)
Q601, 602		SVIUPA68HG–L	Transistor, Differential Amplifier
Q617, 618, 621, 622		**2SC1328–T**	Transistor, Output Amplifier (Buffer)
Q619, 620, 623, 624		**2SA902S–F**	Transistor, Output Amplifier (Buffer) (Product Part No. 2SA722–S, T or U)
Q629, 630		2SC2592–R	Transistor, Output Amplifier (Use in ranks Q, R or S) } Use in pair ranks as same as Q629 ~ 631 and Q632.
Q631, 632		2SA1112–R	Transistor, Output Amplifier (Use in ranks Q, R or S)

Ref. No.		Part No.	Part Name & Description
Q701, 706, 802, 803		2SA1015–O	Transistor, Regulator and Relay Drive
Q707, 709, 711, 804		2SC1509F–R	Transistor, Voltage Stabilizer and Relay Drive
Q708, 710, 712		2SA777–Q	Transistor, Voltage Stabilizer (Use in ranks Q, R or S)
DIODES			
D301, 302, 605, 606, 701, 702, 802		**MA27A1**	Diode, Bias Supply
D303 ~ 306		**MA162A**	Diode, Bias Supply
D307 ~ 310		SVDMZ324A	Diode, Zener 24V
621 ~ 624			
D311 ~ 314		**MA162A**	Diode, Bias Supply
D315 ~ 318		SVDMZ306	Diode, Zener 6V
D321, 322		SVDMZ333A	Diode, Zener 33V
D601 ~ 604		**MA162A**	Diode, Bias Supply and Rectifier
609 ~ 612			
617 ~ 620, 821			
D607, 608		SVDSTV4HG	Diode, Bias Supply
D613 ~ 616		SVDMZ306B	Diode, Zener 6V
703			
D704, 705		SVDMZ316B	Diode, Zener 16V
D706, 707, 708, 709		SVDMZ322A	Diode, Zener 22V
D801, 803		**SVDSR1K2**	Diode, Rectifier
D804 ~ 817		LN81CP	Light Emitting Diode
D818 ~ 820		SVDMZ303A	Diode, Zener 3V
Z801	⚠	**SVDS1RBA40**	Diode, Rectifier
VARIABLE RESISTORS			
VR101, 102		EVMG1GA01B23	MC Pre-Preamp. DC Balance, 2kΩ (B)
VR301, 302		EVMH9GA00B53	Flat Amplifier DC Balance, 5kΩ (B)
VR303		EWS2HS35AT7	Sound Volume, 50kΩ (x 2), 10kΩ (x 2)
VR304		EWKK4A061616	Balance Control, 5kΩ (BH)
VR501 ~ 503		EWJF4A067G14	Super Treble, Treble and Bass Control, 10kΩ (G)
VR504		EWKKMA06553X	Super Bass Control, 5kΩ (X)
VR505		EWKU9A073C5T	Super Bass Frequency Control, 150kΩ (T)
VR601, 602		EVMH8GA00B53	Output Amplifier DC Balance, 5kΩ (B)

Ref. No.		Part No.	Part Name & Description
VR603, 604		EVMH8GA00B52	Output Amplifier Icq, 500Ω (B)
VR701		EVMH8GA00B33	Voltage Regulator, 3kΩ (B)
COILS and TRANSFORMER			
L101 ~ 104		ELQ5A9	Coil, Choke
L651, 652		SLQY15G–1U	Coil, Choke
T1	⚠	SLT5M127	Transformer, Power Source
COMPONENT COMBINATION			
Z802		EXRF203ZS	Component Combination, 0.01μF x 2
SWITCHES			
S1		EVQ03HF20	Switch, Phono Selector
S2		EVQ3MBF20	Switch, Input Selector
S3		EVQ5MKF20	Switch, Rec Selector
S4, 5		SSH273	Switch, Loudness
S6, 7, 8		SSH377	Switch, Eg, Subsonic, Mode, Pre Out
S9		SSH149	Switch, Operation
S10		SSH147	Switch, Muting
S11	⚠	SSH119	Switch, Power Source
S11 [XA] only	⚠	ESB9997S	Switch, Power Source
S12	⚠	ESE37200	Switch, Voltage Adjuster
RELAYS			
RLY1		SSY9	Relay, output (Equalizer)
RLY2		SSY83	Relay, output
LAMPS			
	⚠	**XAMR21S350C**	Lamp, Power and Operation Indicator
FUSES			
F1	⚠	XBA2C16TRO	Fuse, T1.6A (250V)
F2	⚠	XBA2C08TRO	Fuse, T800mA (250V)
F3	⚠	XBA2C10TRO	Fuse, T1.0A (250V)
F4, 5	⚠	XBA2C12TRO	Fuse, T1.2A (250V)

■ RESISTOR AND CAPACITOR PARTS LIST

Ref. No.		Part No.	Part Name & Description
RESISTORS			
R101, 102		**ERO25CKF56R0**	Metal Film, 56Ω, 1/4W, ± 1%
R103, 104		**ERO25CKF2200**	Metal Film, 220Ω, 1/4W, ± 1%
R105, 106		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R107, 108		**ERO25CKF1800**	Metal Film, 180Ω, 1/4W, ± 1%
R109, 110		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R111, 112		**ERO25CKF6800**	Metal Film, 680Ω, 1/4W, ± 1%
R113, 114		**ERO25CKF6801**	Metal Film, 6.8kΩ, 1/4W, ± 1%
R115, 116		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R117, 118	⚠	**ERD25FJ220**	Carbon, 22Ω, 1/4W, ± 5%
R119, 120	⚠	**ERD25FJ220**	Carbon, 22Ω, 1/4W, ± 5%
R121, 122		**ERO25CKF1502**	Metal Film, 15kΩ, 1/4W, ± 1%
R123, 124		**ERO25CKF1000**	Metal Film, 100Ω, 1/4W, ± 1%
R125, 126		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R127, 128		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R129, 130		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R131, 132		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R133, 134		**ERX14AF3R9**	Metal Film, 3.9Ω, 1/4W, ± 1%
R135, 136		**ERG1ANJ122**	Metal Oxide, 1.2kΩ, 1W, ± 5%
R137, 138		**ERG1ANJ152**	Metal Oxide, 1.5kΩ, 1W, ± 5%
R139, 140		**ERO25CKF56R0**	Metal Film, 56Ω, 1/4W, ± 1%
R141, 142		**ERO25CKF56R0**	Metal Film, 56Ω, 1/4W, ± 1%
R143, 144		**ERO25CKF1801**	Metal Film, 1.8kΩ, 1/4W, ± 1%
R201, 202		**ERD25FJ5R6**	Carbon, 5.6Ω, 1/4W, ± 5%
R203, 204		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R205, 206		**ERO25CKF2202**	Metal Film, 22kΩ, 1/4W, ± 1%
R207, 208		**ERO25CKF5602**	Metal Film, 56kΩ, 1/4W, ± 1%
R209, 210	⚠	**ERD25FJ101**	Carbon, 100Ω, 1/4W, ± 5%
R211, 212	⚠	**ERD25FJ101**	Carbon, 100Ω, 1/4W, ± 5%
R213, 214		**ERO25CKF18R0**	Metal Film, 18Ω, 1/4W, ± 1%
R215, 216	⚠	**ERD25FJ151**	Carbon, 150Ω, 1/4W, ± 5%
R217, 218	⚠	**ERD25FJ5R6**	Carbon, 5.6Ω, 1/4W, ± 5%
R221, 222		**ERO25CKF2700**	Metal Film, 270Ω, 1/4W, ± 1%

Ref. No.		Part No.	Part Name & Description
R227, 228		**ERO25CKF2202**	Metal Film, 22kΩ, 1/4W, ± 1%
R229, 230		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R231, 232	⚠	**ERD25FJ330**	Carbon, 33Ω, 1/4W, ± 5%
R233, 234	⚠	**ERD25FJ330**	Carbon, 33Ω, 1/4W, ± 5%
R235, 236		**ERO25CKF2102**	Metal Film, 21kΩ, 1/4W, ± 1%
R237, 238		**ERO25CKF1781**	Metal Film, 1.78kΩ, 1/4W, ± 1%
R239, 240		**ERO25CKF39R0**	Metal Film, 39Ω, 1/4W, ± 1%
R243, 244		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R245, 246		**ERO25CKF2701**	Metal Film, 2.7kΩ, 1/4W, ± 1%
R247, 248		**ERO25CKF3900**	Metal Film, 390Ω, 1/4W, ± 1%
R249, 250		**ERO25CKF4700**	Metal Film, 470Ω, 1/4W, ± 1%
R251, 252		**ERO25CKF1501**	Metal Film, 1.5kΩ, 1/4W, ± 1%
R253, 254		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R255, 256	⚠	**ERD25FJ181**	Carbon, 180Ω, 1/4W, ± 5%
R257, 258	⚠	**ERD25FJ271**	Carbon, 270Ω, 1/4W, ± 5%
R259, 260	⚠	**ERD25FJ820**	Carbon, 82Ω, 1/4W, ± 5%
R261, 262		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R271, 272		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R273, 274		**ERO25CKF2700**	Metal Film, 270Ω, 1/4W, ± 1%
R275, 276		**ERO25CKF1501**	Metal Film, 1.5kΩ, 1/4W, ± 1%
R301, 302		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R303, 304		**ERO25CKF4703**	Metal Film, 470kΩ, 1/4W, ± 1%
R305, 306		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R307, 308		**ERO25CKF3302**	Metal Film, 33kΩ, 1/4W, ± 1%
R309, 310		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R311, 312		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R313, 314		**ERO25CKF1200**	Metal Film, 120Ω, 1/4W, ± 1%
R315, 316	⚠	**ERD25FJ121**	Carbon, 120Ω, 1/4W, ± 5%
R317, 318	⚠	**ERD25FJ5R6**	Carbon, 5.6Ω, 1/4W, ± 5%
R319, 320	⚠	**ERD25FJ5R6**	Carbon, 5.6Ω, 1/4W, ± 5%
R321, 322		**ERO25CKF2700**	Metal Film, 270Ω, 1/4W, ± 1%
R323, 324		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R325, 326		**ERO25CKF8202**	Metal Film, 82kΩ, 1/4W, ± 1%
R327, 328		**ERO25CKF3302**	Metal Film, 33kΩ, 1/4W, ± 1%

Ref. No.		Part No.	Part Name & Description
R329, 330		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R331, 332	△	**ERD25FJ331**	Carbon, 330Ω, 1/4W, ± 5%
R333, 334	△	**ERQ12HJ470**	Fuse Type Metallic, 47Ω, 1/2W, ± 5%
R335, 336	△	**ERQ12HJ470**	Fuse Type Metallic, 47Ω, 1/2W, ± 5%
R337, 338		**ERO25CKF1001**	Metal Film, 1kΩ, 1/4W, ± 1%
R339, 340		**ERO25CKF3900**	Metal Film, 390Ω, 1/4W, ± 1%
R341, 342		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R343, 344		**ERO25CKF2201**	Metal Film, 2.2kΩ, 1/4W, ± 1%
R345, 346		**ERO25CKF1001**	Metal Film, 1kΩ, 1/4W, ± 1%
R347, 348		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R349, 350		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R351, 352		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R353, 354		**ERO25CKF2702**	Metal Film, 27kΩ, 1/4W, ± 1%
R355, 356	△	**ERD25FJ560**	Carbon, 56Ω, 1/4W, ± 5%
R357, 358	△	**ERD25FJ560**	Carbon, 56Ω, 1/4W, ± 5%
R359, 360		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R361, 362		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R365, 366		**ERO25CKF1003**	Metal Film, 100kΩ, 1/4W, ± 1%
R367, 368		**ERO25CKF10R0**	Metal Film, 10Ω, 1/4W, ± 1%
R371, 372		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R373, 374		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R375, 376		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R377		**ERO25CKF4703**	Metal Film, 470kΩ, 1/4W, ± 1%
R379, 380		**ERO25CKF8201**	Metal Film, 8.2kΩ, 1/4W, ± 1%
R381, 382		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R401, 402		**ERO25CKF1502**	Metal Film, 15kΩ, 1/4W, ± 1%
R403, 404		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R405, 406		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R407, 408		**ERO25CKF2701**	Metal Film, 2.7kΩ, 1/4W, ± 1%
R409, 410	△	**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R411, 412		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R413, 414		**ERO25CKF6800**	Metal Film, 680Ω, 1/4W, ± 1%
R415, 416		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R417, 418		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R419, 420	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R421, 422	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R425, 426		**ERO25CKF1502**	Metal Film, 15kΩ, 1/4W, ± 1%
R427, 428		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R429, 430		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R431, 432		**ERO25CKF2701**	Metal Film, 2.7kΩ, 1/4W, ± 1%
R433, 434	△	**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R435, 436		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R437, 438		**ERO25CKF6800**	Metal Film, 680Ω, 1/4W, ± 1%
R439, 440		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R441, 442		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R443, 444	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R445, 446	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R451, 452		**ERO25CKF1502**	Metal Film, 15kΩ, 1/4W, ± 1%
R453, 454		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R455, 456		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R457, 458		**ERO25CKF2701**	Metal Film, 2.7kΩ, 1/4W, ± 1%
R459, 460	△	**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R461, 462		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R463, 464		**ERO25CKF6800**	Metal Film, 680Ω, 1/4W, ± 1%
R465, 466		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R467, 468		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R469, 470	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R471, 472	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R475, 476		**ERO25CKF1502**	Metal Film, 15kΩ, 1/4W, ± 1%
R477, 478		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R479, 480		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R481, 482		**ERO25CKF2701**	Metal Film, 2.7kΩ, 1/4W, ± 1%
R483, 484	△	**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R485, 486		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R487, 488		**ERO25CKF6800**	Metal Film, 680Ω, 1/4W, ± 1%
R489, 490		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R491, 492		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R493, 494	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R495, 496	△	**ERD25FJ470**	Carbon, 47Ω, 1/4W, ± 5%
R501, 502		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R503, 504		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R505, 506		**ERO25CKF1802**	Metal Film, 18kΩ, 1/4W, ± 1%
R507, 508		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R509, 510		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R511, 512		**ERO25CKF4700**	Metal Film, 470Ω, 1/4W, ± 1%
R513, 514		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R515, 516		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R517, 518		**ERO25CKF1802**	Metal Film, 18kΩ, 1/4W, ± 1%
R519, 520		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R521, 522		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R523, 524		**ERO25CKF3301**	Metal Film, 3.3kΩ, 1/4W, ± 1%
R525, 526		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%

Ref. No.		Part No.	Part Name & Description
R527, 528		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R529, 530		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R531, 532		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R533, 534		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R535, 536		**ERO25CKF2701**	Metal Film, 2.7kΩ, 1/4W, ± 1%
R537, 538		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R539, 540		**ERO25CKF1003**	Metal Film, 100kΩ, 1/4W, ± 1%
R541, 542		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R543, 544		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R545, 546		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R547, 548		**ERO25CKF8201**	Metal Film, 8.2kΩ, 1/4W, ± 1%
R549, 550		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R551, 552		**ERO25CKF2700**	Metal Film, 270Ω, 1/4W, ± 1%
R553, 554		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R555, 556		**ERO25CKF1000**	Metal Film, 100Ω, 1/4W, ± 1%
R557, 558		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R561, 562		**ERO25CKF6801**	Metal Film, 6.8kΩ, 1/4W, ± 1%
R563, 564		**ERO25CKF6801**	Metal Film, 6.8kΩ, 1/4W, ± 1%
R571, 572		**ERO25CKF1802**	Metal Film, 18kΩ, 1/4W, ± 1%
R573, 574		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R575, 576		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R577, 578		**ERO25CKF8201**	Metal Film, 8.2kΩ, 1/4W, ± 1%
R579, 580		**ERO25CKF1002**	Metal Film, 10kΩ, 1/4W, ± 1%
R581, 582		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R583, 584		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R601, 602		**ERO25CKF1001**	Metal Film, 1kΩ, 1/4W, ± 1%
R603, 604		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R605, 606		**ERO25CKF1202**	Metal Film, 12kΩ, 1/4W, ± 1%
R607, 608		**ERO25CKF2202**	Metal Film, 22kΩ, 1/4W, ± 1%
R609, 610		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R611, 612		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R613, 614		**ERO25CKF3300**	Metal Film, 330Ω, 1/4W, ± 1%
R615, 616	△	**ERD25FJ121**	Carbon, 120Ω, 1/4W, ± 5%
R617, 618	△	**ERD25FJ5R6**	Carbon, 5.6Ω, 1/4W, ± 5%
R619, 620	△	**ERD25FJ5R6**	Carbon, 5.6Ω, 1/4W, ± 5%
R621, 622		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R625, 626		**ERO25CKF8202**	Metal Film, 82kΩ, 1/4W, ± 1%
R627, 628		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R629, 630		**ERO25CKF3901**	Metal Film, 3.9kΩ, 1/4W, ± 1%
R631, 632		**ERO25CKF4702**	Metal Film, 47kΩ, 1/4W, ± 1%
R633, 634		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R635, 636		**ERO25CKF1003**	Metal Film, 100kΩ, 1/4W, ± 1%
R637, 638		**ERO25CKF1501**	Metal Film, 1.5kΩ, 1/4W, ± 1%
R639, 640		**ERO25CKF8200**	Metal Film, 820Ω, 1/4W, ± 1%
R641, 642		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R643, 644		**ERO25CKF1000**	Metal Film, 100Ω, 1/4W, ± 1%
R645, 646		**ERO25CKF8201**	Metal Film, 8.2kΩ, 1/4W, ± 1%
R647, 648		**ERO25CKF2702**	Metal Film, 27kΩ, 1/4W, ± 1%
R649, 650		**ERO25CKF6801**	Metal Film, 6.8kΩ, 1/4W, ± 1%
R651, 652		**ERO25CKF6801**	Metal Film, 6.8kΩ, 1/4W, ± 1%
R653, 654		**ERO25CKF1201**	Metal Film, 1.2kΩ, 1/4W, ± 1%
R655, 656		**ERO25CKF4700**	Metal Film, 470Ω, 1/4W, ± 1%
R657, 658		**ERO25CKF4700**	Metal Film, 470Ω, 1/4W, ± 1%
R659, 660		**ERO25CKF5600**	Metal Film, 560Ω, 1/4W, ± 1%
R661, 662		**ERX1ANJ1R8**	Metal Film, 1.8Ω, 1W, ± 5%
R663, 664		**ERX1ANJ1R8**	Metal Film, 1.8Ω, 1W, ± 5%
R665, 666	△	**ERD25FJ560**	Carbon, 56Ω, 1/4W, ± 5%
R667, 668	△	**ERD25FJ560**	Carbon, 56Ω, 1/4W, ± 5%
R669, 670		**ERO25CKF3300**	Metal Film, 330Ω, 1/4W, ± 1%
R671, 672		**ERO25CKF1501**	Metal Film, 1.5kΩ, 1/4W, ± 1%
R673, 674		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R675, 676		**ERO25CKF5601**	Metal Film, 5.6kΩ, 1/4W, ± 1%
R681, 682	△	**ERD50FJ100**	Carbon, 10Ω, 1/2W, ± 5%
R683, 684	△	**ERD50FJ6R8**	Carbon, 6.8Ω, 1/2W ± 5%
R685, 686		**ERO25CKF5602**	Metal Film, 56kΩ, 1/4W, ± 1%
R687, 688		**ERX3ANJ470**	Metal Film, 47Ω, 3W, ± 5%
R689, 690		**ERX3ANJ470**	Metal Film, 47Ω, 3W, ± 5%
R701, 702	△	**ERD25FJ101**	Carbon, 100Ω, 1/4W, ± 5%
R703, 704		**ERO25CKF2702**	Metal Film, 27kΩ, 1/4W, ± 1%
R705, 706	△	**ERD25FJ101**	Carbon, 100Ω, 1/4W, ± 5%
R709, 710		**ERO25CKF2202**	Metal Film, 22kΩ, 1/4W, ± 1%
R711		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R712		**ERO25CKF5602**	Metal Film, 56kΩ, 1/4W, ± 1%
R713		**ERO25CKF3301**	Metal Film, 3.3kΩ, 1/4W, ± 1%
R714		**ERO25CKF5602**	Metal Film, 56kΩ, 1/4W, ± 1%
R715, 716	△	**ERD25FJ221**	Carbon, 220Ω, 1/4W, ± 5%
R717, 718		**ERO25CKF8201**	Metal Film, 8.2kΩ, 1/4W, ± 1%
R719, 720	△	**ERQ12HJ101**	Fuse Type Metallic, 100Ω, 1/2W, ± 5%
R721, 722		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R723, 724	△	**ERQ12HJ101**	Fuse Type Metallic, 100Ω, 1/2W, ± 5%
R725, 726		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%
R802		**ERO25CKF4701**	Metal Film, 4.7kΩ, 1/4W, ± 1%

Ref. No.		Part No.	Part Name & Description
R803		**ERD25TJ393**	Carbon, 39kΩ, 1/4W, ± 5%
R804		**ERD25TJ684**	Carbon, 680kΩ, 1/4W, ± 5%
R805		**ERO25CKF3302**	Metal Film, 33kΩ, 1/4W, ± 1%
R806		**ERG1ANJ222**	Metal Oxide, 2.2kΩ, 1W, ± 5%
R807		**ERG1ANJ102**	Metal Oxide, 1kΩ, 1W, ± 5%
R808, 809	△	**ERD50FJ471**	Carbon, 470Ω, 1/2W, ± 5%
R810	△	**ERD50FJ471**	Carbon, 470Ω, 1/2W, ± 5%
R816	△	**ERD25FJ122**	Carbon, 1.2kΩ, 1/4W, ± 5%
R851, 852	△	**ERQ12HJ470**	Fuse Type Metallic, 47Ω, 1/2W, ± 5%

CAPACITORS

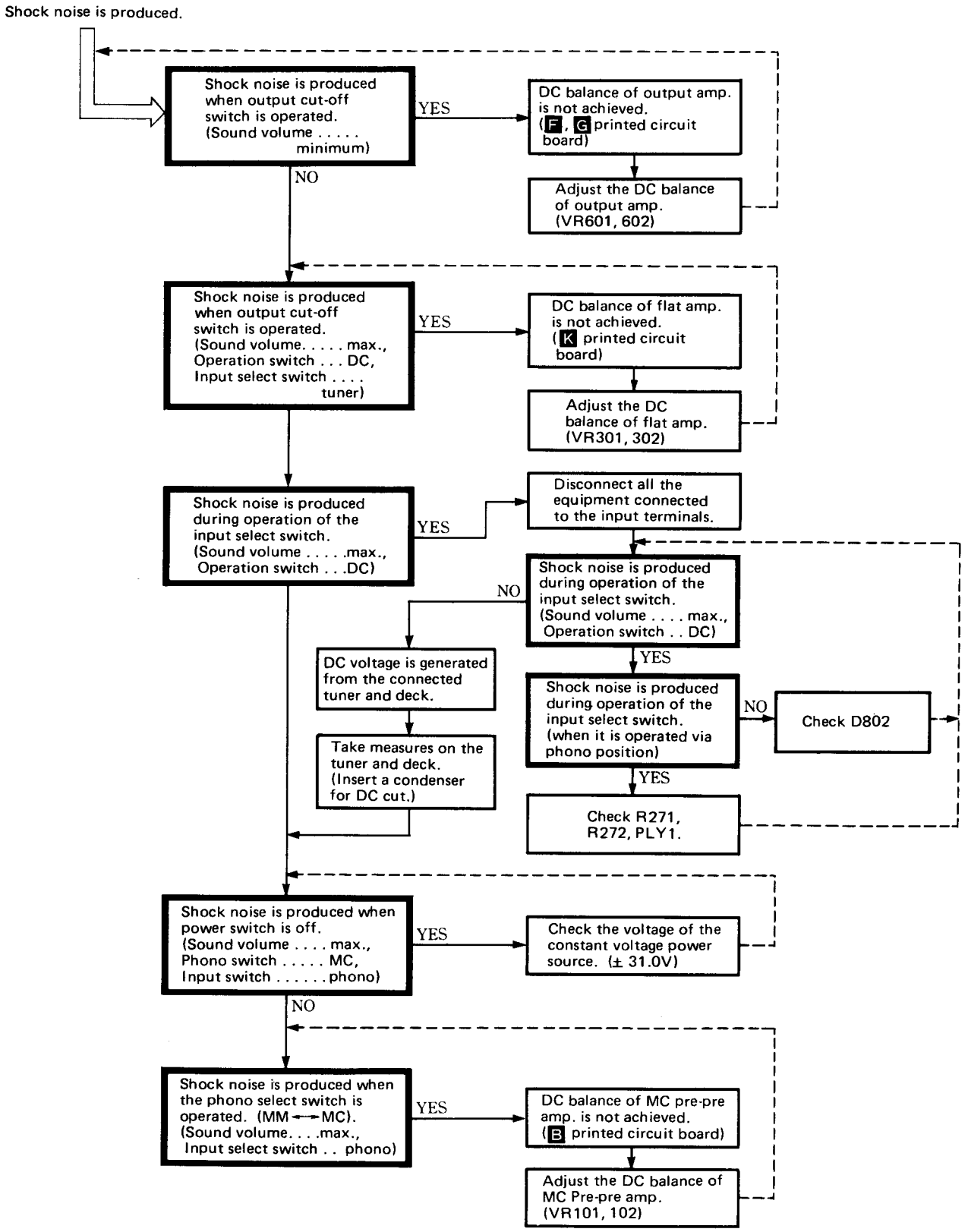
C1, 2	△	ECKDKC103PF	Ceramic, 0.01μF, 400VAC, +100 −0%
C3, 4		**ECEA50Z1**	Electrolytic, 1μF, 50V
C5 [XA] only	△	ECKDKC103PF	Ceramic, 0.01μF, 400VAC, +100 −0%
C101, 102		ECQM1H103KZ	Polyester, 0.01μF, 50V, ± 10%
C103, 104		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C105, 106		ECKD1H221KB	Ceramic, 220pF, 50V, ± 10%
C107, 108		**ECEA1AS471**	Electrolytic, 470μF, 10V
C109, 110		**ECEA1HS100**	Electrolytic, 10μF, 50V
C111, 112		**ECEA1ES470**	Electrolytic, 47μF, 25V
C113, 114		ECQE1335KZ	Polyester, 3.3μF, 125V, ± 10%
C115, 116		ECQM1H102KZ	Polyester, 0.001μF, 50V, ± 10%
C117, 118		**ECEA1HS100**	Electrolytic, 10μF, 50V
C201, 202		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C203, 204		ECCD1H330K	Ceramic, 33pF, 50V, ± 10%
C205, 206		ECQM1H562KZ	Polyester, 0.0056μF, 50V, ± 10%
C207, 208		ECKD1H561KB	Ceramic, 560pF, 50V, ± 10%
C209, 210		ECCD1H220K	Ceramic, 22pF, 50V, ± 10%
C211, 212		ECCD1H470K	Ceramic, 47pF, 50V, ± 10%
C213, 214		ECCD1H470K	Ceramic, 47pF, 50V, ± 10%
C215, 216		**ECEA1HS100**	Electrolytic, 10μF, 50V
C217, 218		ECQP1154FZ	Polypropylene, 0.15μF, 125V, ± 10%
C219, 220		ECQM1H272JZ	Polyester, 0.0027μF, 50V, ± 5%
C221, 222		ECQP1393FZ	Polypropylene, 0.039μF, 125V, ± 10%
C223, 224		**ECEA1AS221**	Electrolytic, 220μF, 10V
C225, 226		**ECEA0JS222**	Electrolytic, 2200μF, 6.3V
C227, 228	△	**ECEA16N4R7E**	Non-Polar Electrolytic, 4.7μF, 16V
C229, 230		ECKD1H331KB	Ceramic, 330pF, 50V, ± 10%
C231, 232		ECQM1H102KZ	Ceramic, 0.001μF, 50V, ± 10%
C233, 234		ECKD1H331KB	Ceramic, 330pF, 50V, ± 10%
C271, 272		ECQE1335KZ	Polyester, 3.3μF, 125V, ± 10%
C273, 274		ECQM1H562JZ	Polyester, 0.0056μF, 50V, ± 5%
C301, 302		ECKD1H561KB	Ceramic, 560pF, 50V, ± 10%
C303, 304		ECKD1H180K	Ceramic, 18pF, 50V, ± 10%
C305, 306	△	**ECEA16N10**	Non-Polar Electrolytic, 10μF, 16V
C307, 308		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C309, 310		ECCD1H050C	Ceramic, 5pF, 50V, ±0.25pF
C311, 312		ECCD1H100K	Ceramic, 10pF, 50V, ± 10%
C313, 314		ECCD1H100K	Ceramic, 10pF, 50V, ± 10%
C315, 316		**ECEA1HS100**	Electrolytic, 10μF, 50V
C317, 318		**ECEA1JS4R7**	Electrolytic, 4.7μF, 63V
C319, 320		**ECEA1JS4R7**	Electrolytic, 4.7μF, 63V
C323, 324		**ECEA1VS330**	Electrolytic, 33μF, 35V
C327, 328		ECQM1H153KZ	Polyester, 0.015μF, 50V, ± 10%
C371, 372		ECQE1334KZ	Polyester, 0.33μF, 125V, ± 10%
C373, 374		ECQE1334KZ	Polyester, 0.33μF, 125V, ± 10%
C401, 402		ECCD1H151K	Ceramic, 150pF, 50V, ± 10%
C403, 404		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C405, 406		**ECEA1CS330**	Electrolytic, 33μF, 16V
C407, 408		**ECEA1VS330**	Electrolytic, 33μF, 35V
C409, 410		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C411, 412		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C425, 426		ECCD1H151K	Ceramic, 150pF, 50V, ± 10%
C427, 428		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C429, 430		**ECEA1CS330**	Electrolytic, 33μF, 16V
C431, 432		**ECEA1VS330**	Electrolytic, 33μF, 35V
C433, 434		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C435, 436		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%

Ref. No.		Part No.	Part Name & Description
C451, 452		ECCD1H151K	Ceramic, 150pF, 50V, ± 10%
C453, 454		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C455, 456		**ECEA1CS330**	Electrolytic, 33μF, 16V
C457, 458		**ECEA1VS330**	Electrolytic, 33μF, 35V
C459, 460		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C461, 462		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C475, 476		ECCD1H151K	Ceramic, 150pF, 50V, ± 10%
C477, 478		ECCD1H101K	Ceramic, 100pF, 50V, ± 10%
C479, 480		**ECEA1CS330**	Electrolytic, 33μF, 16V
C481, 482		**ECEA1VS330**	Electrolytic, 33μF, 35V
C483, 484		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C485, 486		ECCD1H680K	Ceramic, 68pF, 50V, ± 10%
C501, 502		ECCD1H180K	Ceramic, 18pF, 50V, ± 10%
C503, 504		ECQM1H102JZ	Polyester, 0.001μF, 50V, ± 5%
C505, 506	△	**ECEA16N10**	Non-Polar Electrolytic, 10μF, 16V
C507, 508		ECCD1H180K	Ceramic, 18pF, 50V, ± 10%
C509, 510		ECQM1H472JZ	Polyester, 0.0047μF, 50V, ± 5%
C511, 512	△	**ECEA16N10**	Non-Polar Electrolytic, 10μF, 16V
C513, 514		ECCD1H180K	Ceramic, 18pF, 50V, ± 10%
C515, 516		ECQM1H333JZ	Polyester, 0.033μF, 50V, ± 5%
C517, 518	△	**ECEA16N10**	Non-Polar Electrolytic, 10μF, 16V
C519, 520		ECCD1H180K	Ceramic, 18pF, 50V, ± 10%
C521, 522	△	**ECEA16N33**	Non-Polar Electrolytic, 33μF, 16V
C523, 524	△	**ECEA16N33**	Non-Polar Electrolytic, 33μF, 16V
C525, 526	△	**ECEA16N33**	Non-Polar Electrolytic, 33μF, 16V
C527, 528		**ECEA1HS100**	Electrolytic, 10μF, 50V
C529, 530		**ECEA1HS100**	Electrolytic, 10μF, 50V
C571, 572		ECQM1H152JZ	Polyester, 0.0015μF, 50V, ± 5%
C573, 574		ECQM1H103JZ	Polyester, 0.01μF, 50V, ± 5%
C575, 576		ECQM1H152JZ	Polyester, 0.0015μF, 50V, ± 5%
C577, 578		ECQM1H103JZ	Polyester, 0.01μF, 50V, ± 5%
C601, 602		ECQM1H102KZ	Polyester, 0.001μF, 50V, ± 10%
C605, 606	△	**ECEA16N10**	Non-Polar Electrolytic, 10μF, 16V
C609, 610		ECCD1H180K	Ceramic, 18pF, 50V, ± 10%
C611, 612		ECCD1H151K	Ceramic, 150pF, 50V, ± 10%
C613, 614		**ECEA1HS100**	Electrolytic, 10μF, 50V,
C615, 616		ECKD1H821KB	Ceramic, 820pF, 50V, ± 10%
C617, 618		ECKD1H821KB	Ceramic, 820pF, 50V, ± 10%
C623, 624		**ECEA1JS4R7**	Electrolytic, 4.7μF, 63V
C625, 626		**ECEA1JS4R7**	Electrolytic, 4.7μF, 63V
C627, 628		ECCD1H151K	Ceramic, 150pF, 50V, ± 10%
C629, 630		ECQM1H222KZ	Polyester, 0.0022μF, 50V, ± 10%
C631, 632		ECKD1H271KB	Ceramic, 270pF, 50V, ± 10%
C651, 652		ECQM1H822KZ	Polyester, 0.0082μF, 50V, ± 10%
C653, 654		ECQE1105KZ	Polyester, 1μF, 125V, ± 10%
C655, 656		**ECEA1HS100**	Electrolytic, 10μF, 50V
C657, 658		**ECEA1HS100**	Electrolytic, 10μF, 50V
C659		**ECEA1HS100**	Electrolytic, 10μF, 50V
C701, 702		**ECEA1JS330**	Electrolytic, 33μF, 63V
C703		**ECEA1CS330**	Electrolytic, 33μF, 16V
C704, 705		ECQM1H103KZ	Polyester, 0.01μF, 50V, ± 10%
C706, 707		**ECEA1HS100**	Electrolytic, 10μF, 50V
C708, 709		**ECEA1HS100**	Electrolytic, 10μF, 50V
C710, 711		**ECEA1ES101**	Electrolytic, 100μF, 25V
C712, 713		**ECEA1HS100**	Electrolytic, 10μF, 50V
C714, 715		**ECEA1ES101**	Electrolytic, 100μF, 25V
C716, 717		**ECEA1HS100**	Electrolytic, 10μF, 50V
C718, 719		**ECEA1ES101**	Electrolytic, 100μF, 25V
C751, 752		**ECEA1HS100**	Electrolytic, 10μF 50V
C753, 754		**ECEA1VS471**	Electrolytic, 470μF, 35V
C801		**ECEA1AS221**	Electrolytic, 220μF 10V
C802		**ECEA1JS4R7**	Electrolytic, 4.7μF 63V
C803		**ECEA1HS100**	Electrolytic, 10μF, 50V
C804		ECKD1H102MD	Ceramic, 0.001μF, 50V +80 −20%
C805, 806		ECET50R472SW	Electrolytic, 4700μF 50V
C807		**ECEA1AS102**	Electrolytic, 1000μF 10V
C808		**ECEA25Z4R7**	Electrolytic, 4.7μF 25V
C809		**ECEA1HS100**	Electrolytic, 10μF 50V
C819		**ECEA1AS101**	Electrolytic, 100μF, 10V

■ TROUBLE SHOOTING

Measures against shock noise

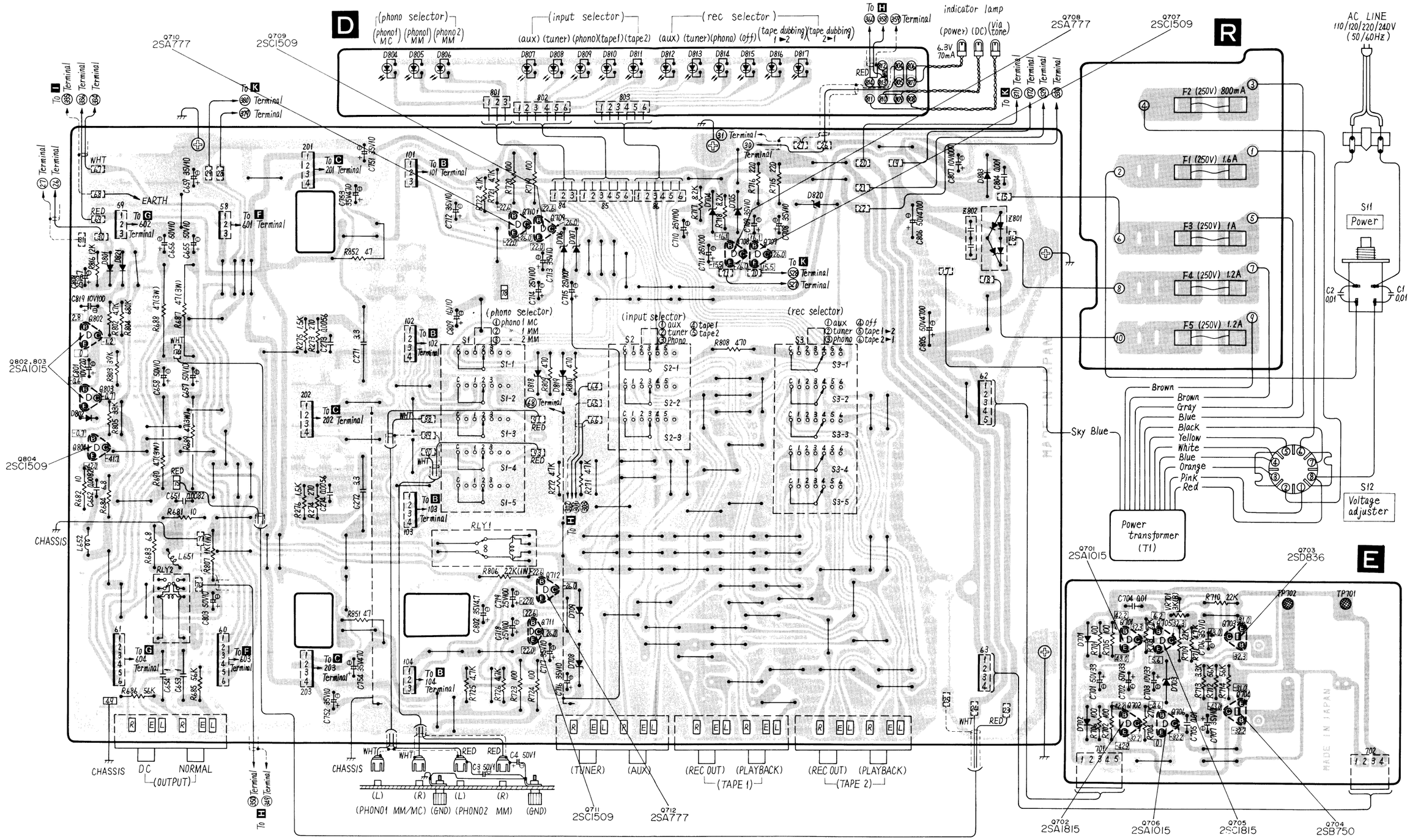
Since this is a DC control amplifier, shock noise is produced during switch control if DC voltage is generated in the signal line. In that case, check it according to the following procedure.


Shock noise is produced.
Shock noise is produced when output cut-off switch is operated. (Sound volume . . . . . minimum)
YES
DC balance of output amp. is not achieved. (F, G printed circuit board)
Adjust the DC balance of output amp. (VR601, 602)
NO
Shock noise is produced when output cut-off switch is operated. (Sound volume. . . . . max., Operation switch . . . DC, Input select switch . . . . tuner)
YES
DC balance of flat amp. is not achieved. (K printed circuit board)
Adjust the DC balance of flat amp. (VR301, 302)
Shock noise is produced during operation of the input select switch. (Sound volume . . . . .max., Operation switch . . .DC)
YES
Disconnect all the equipment connected to the input terminals.
Shock noise is produced during operation of the input select switch. (Sound volume . . . . max., Operation switch . . DC)
NO
YES
DC voltage is generated from the connected tuner and deck.
Take measures on the tuner and deck. (Insert a condenser for DC cut.)
Shock noise is produced during operation of the input select switch. (when it is operated via phono position)
NO
Check D802
YES
Check R271, R272, PLY1.
Shock noise is produced when power switch is off. (Sound volume . . . . max., Phono switch . . . . . MC, Input switch . . . . . phono)
YES
Check the voltage of the constant voltage power source. (± 31.0V)
NO
Shock noise is produced when the phono select switch is operated. (MM ⟷ MC). (Sound volume. . . .max., Input select switch . . phono)
YES
DC balance of MC pre-pre amp. is not achieved. (B printed circuit board)
Adjust the DC balance of MC Pre-pre amp. (VR101, 102)

■ PRINTED CIRCUIT BOARD

(A Selector switches & Relay drive circuits, D Indicators circuit, E Voltage regulator circuit, R Power source fuse circuit)

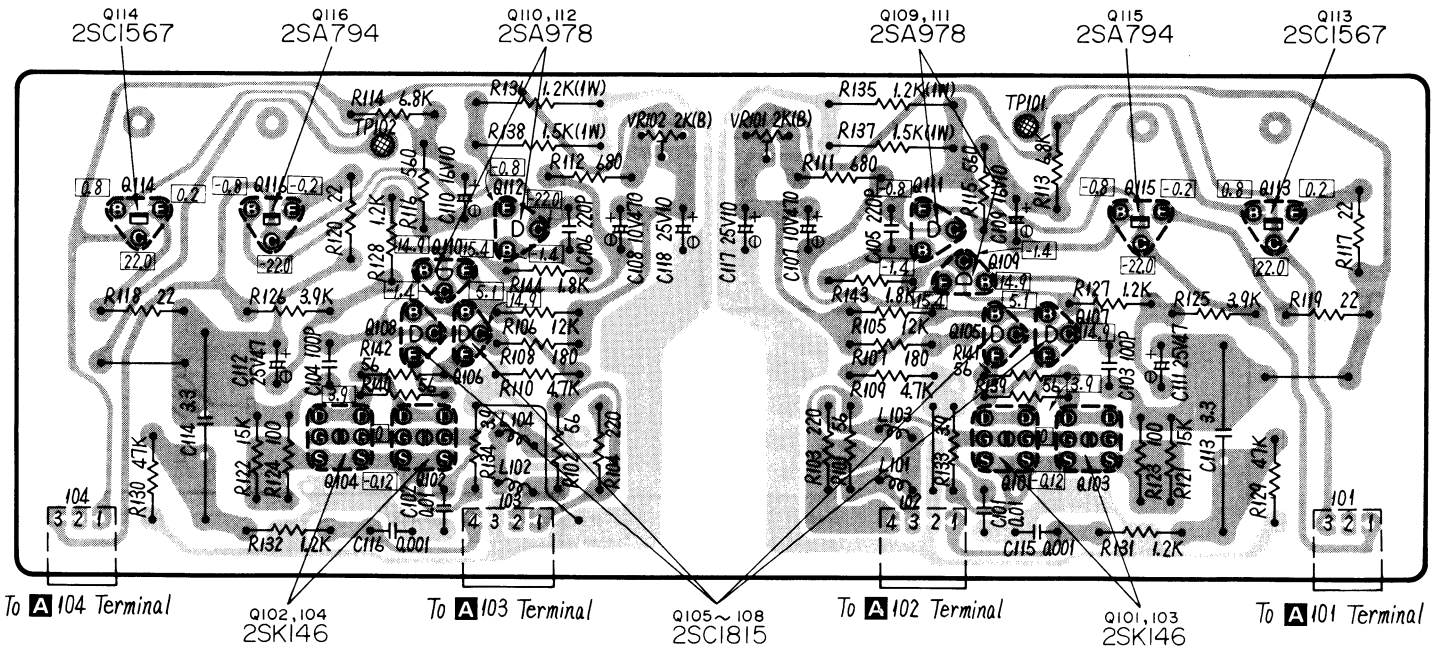
Earth (Ground) Lines



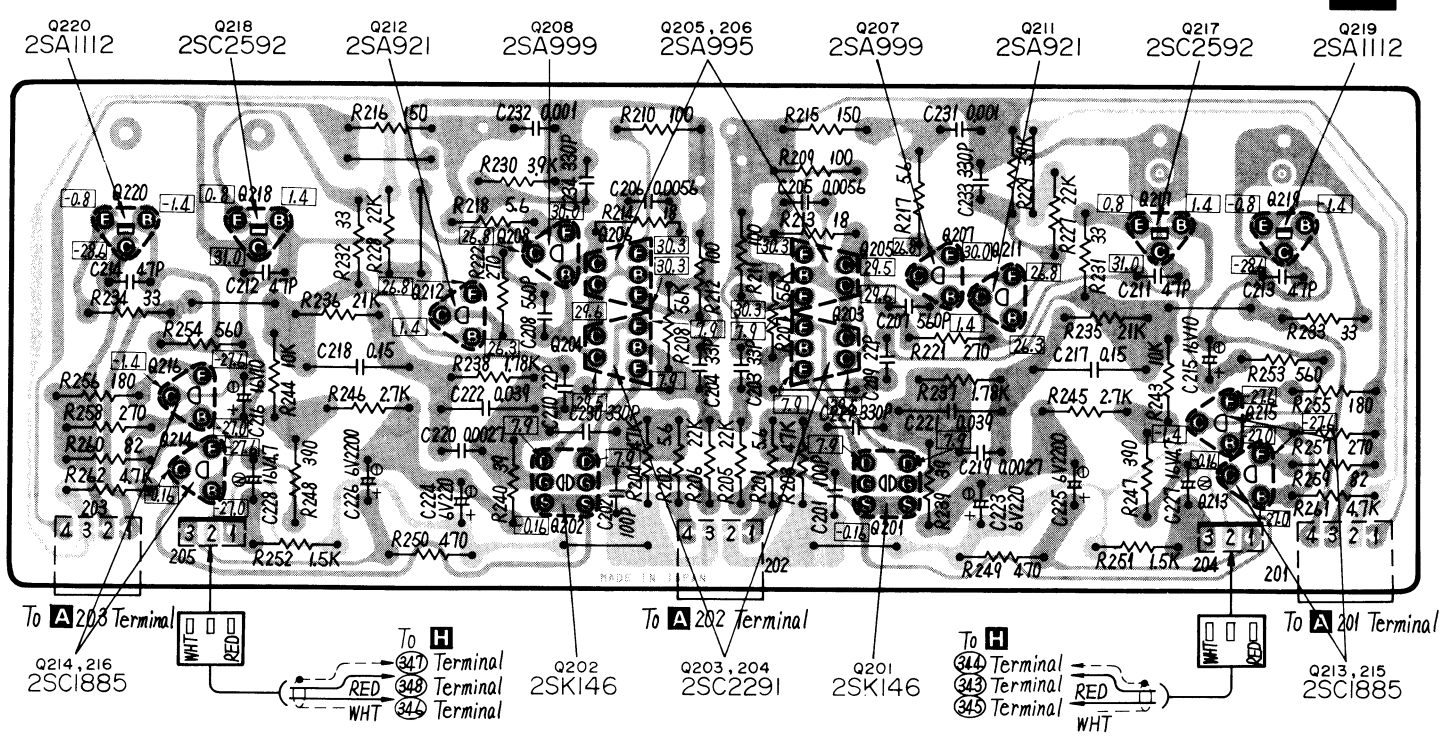
■ PRINTED CIRCUIT BOARD

Earth (Ground) Lines

B MC Pre-preamplifier circuit



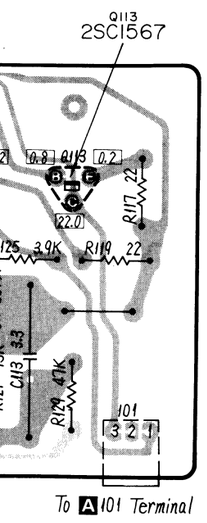
C Equalizer circuit



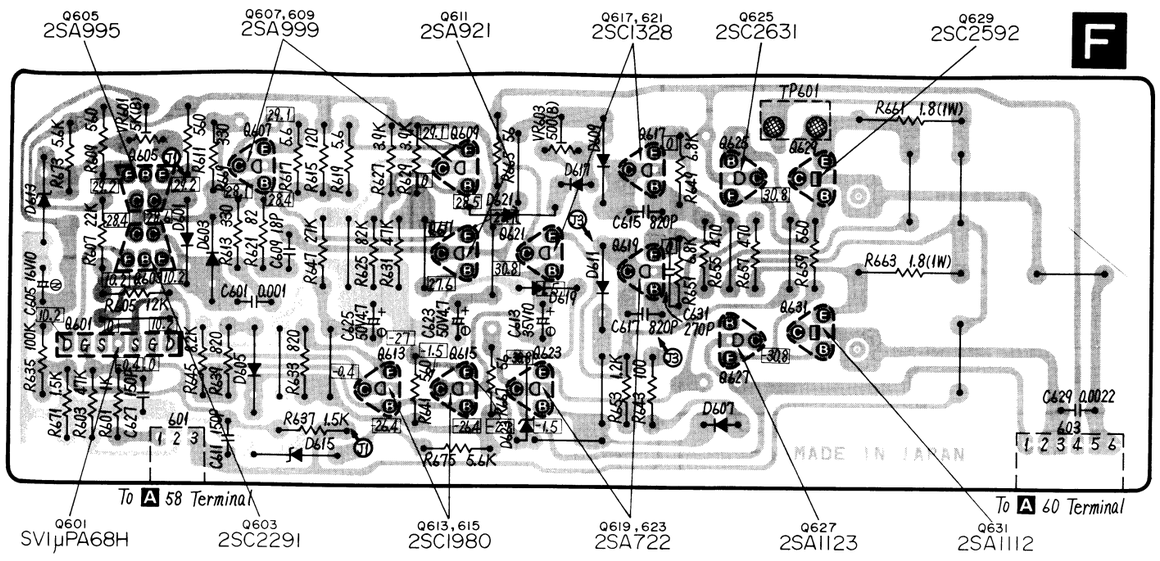
SU-A4K

Earth (Ground) Lines

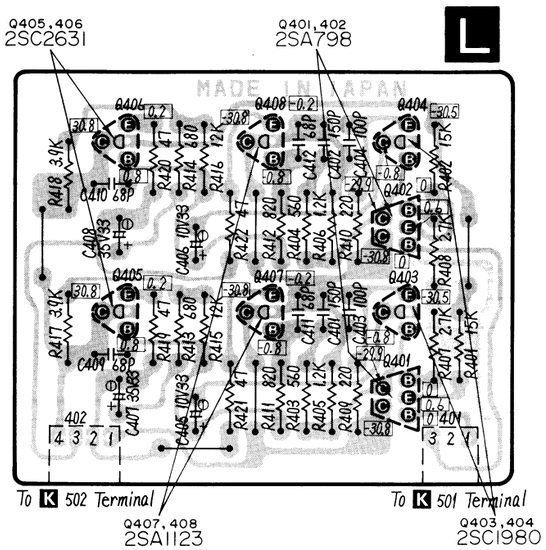
B



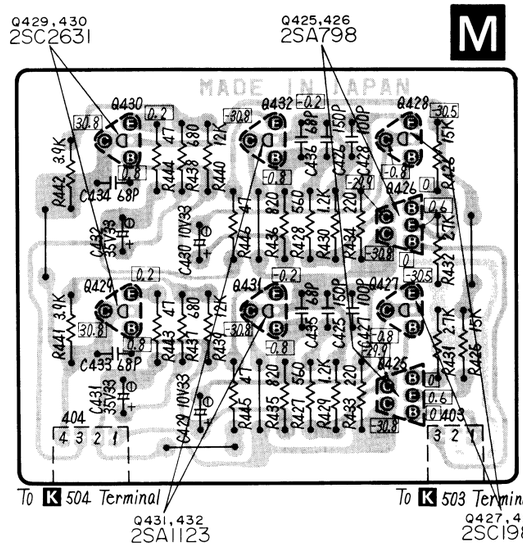
F Output amplifier circuit (Left channel)



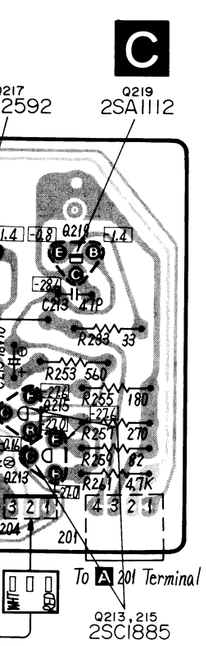
L Super treble circuit



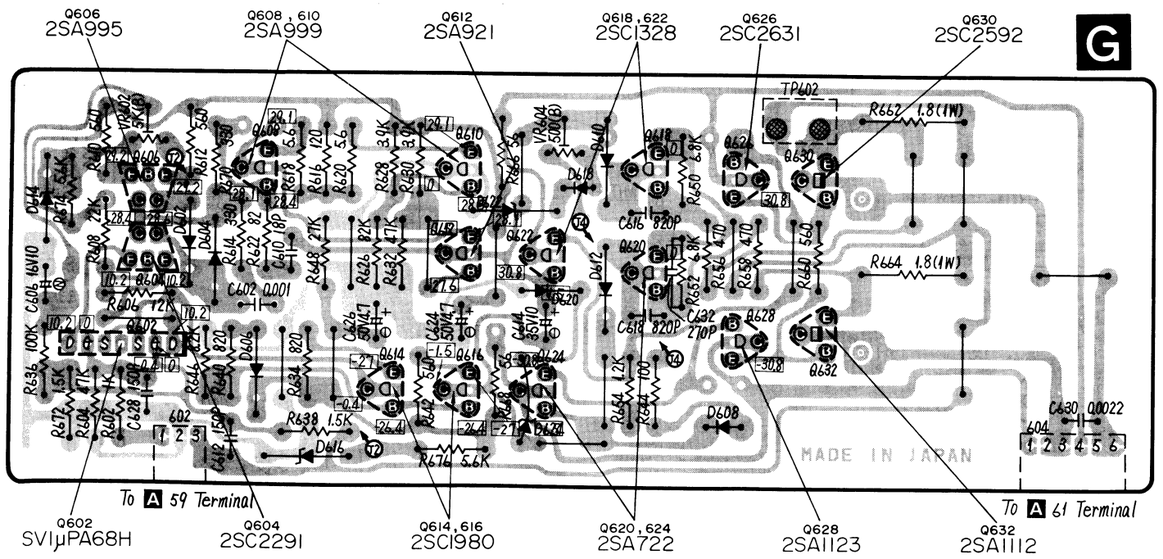
M Treble circuit



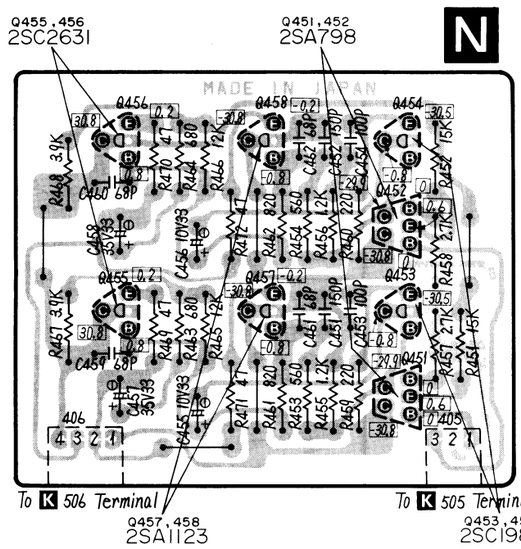
C



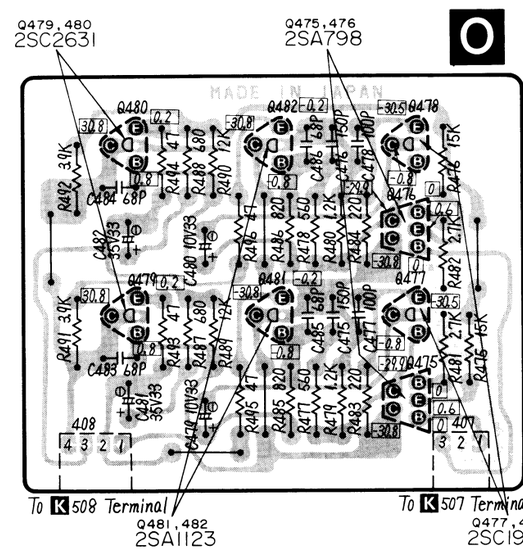
G Output amplifier circuit (Right channel)



N Bass circuit

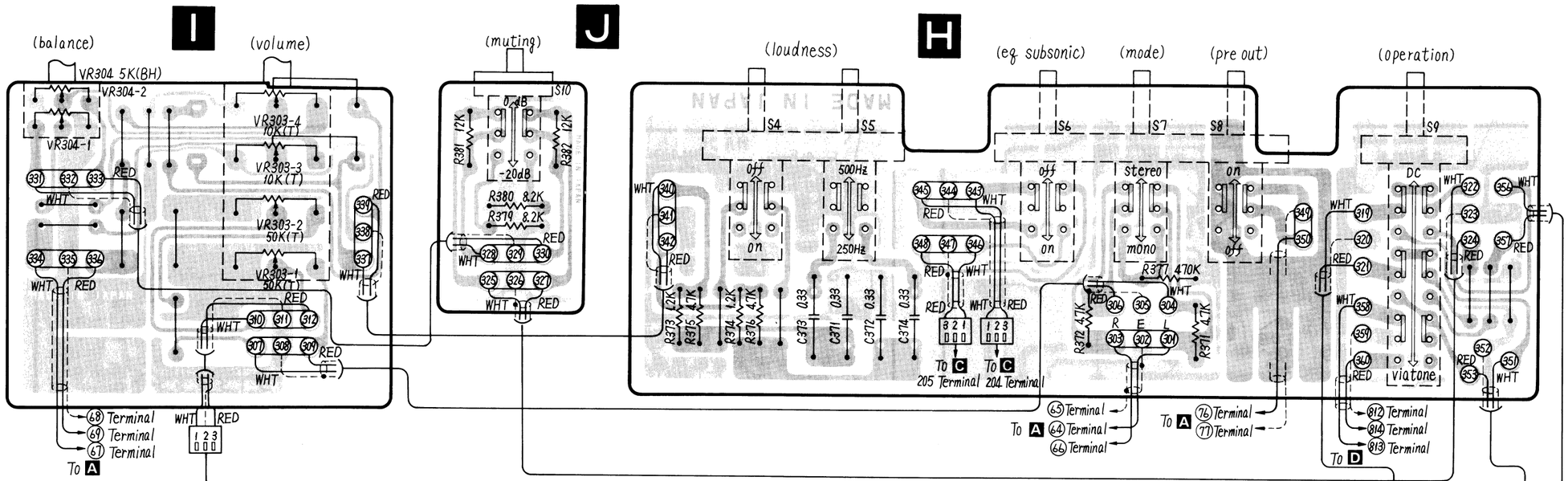


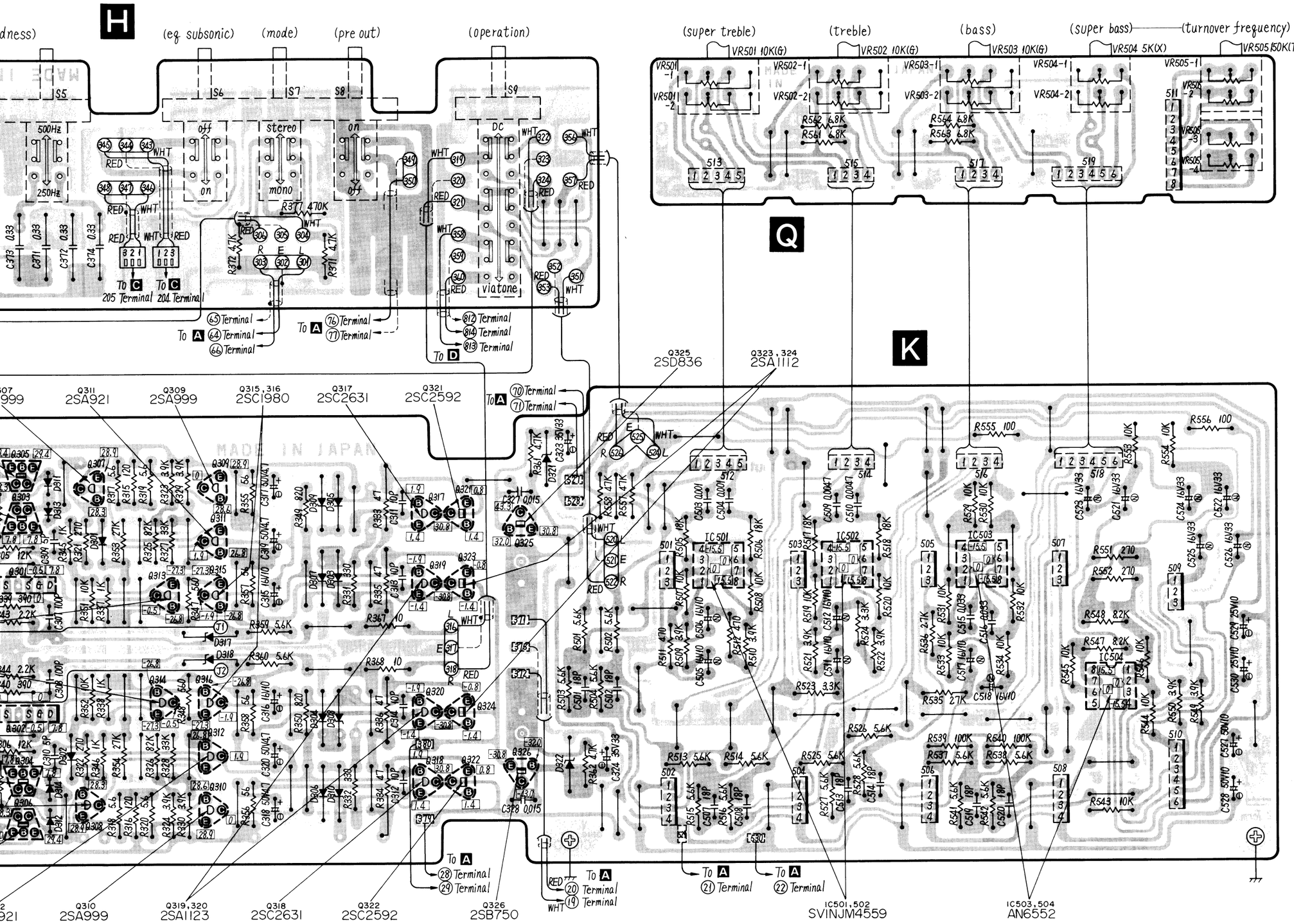
O Super bass circuit



■ PRINTED CIRCUIT BOARD

(H Operation switches circuit, I Volume & Balance control, J Muting switch,
K Flat amplifier & Tone control circuits, Q Tone control volume)





19

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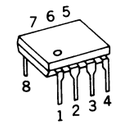
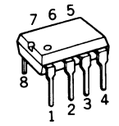
■ TERMINAL GUIDE OF TRANSISTORS AND IC'S

SVINJM4559DS

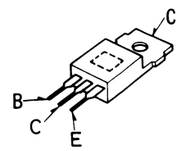


AN6552F

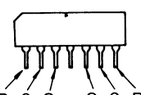


2SK146

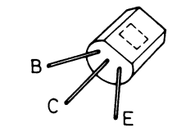
2SA794, 2SC1567



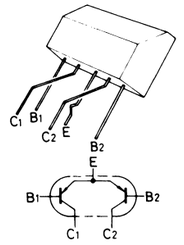
SVIμPA68H



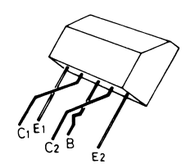
2SA978



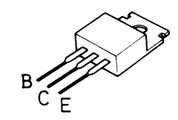
2SA798



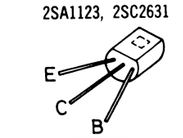
2SA995, 2SC2291

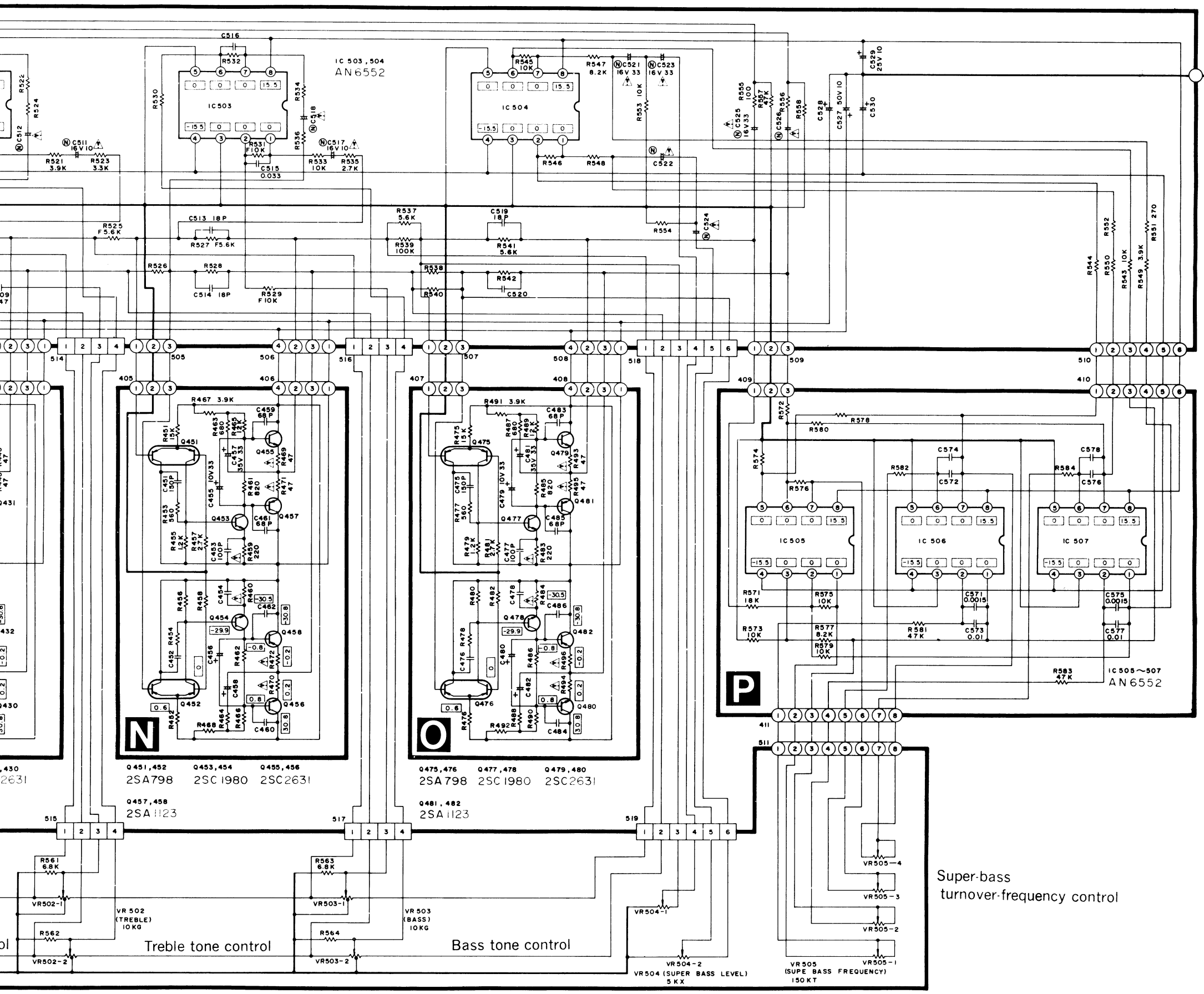


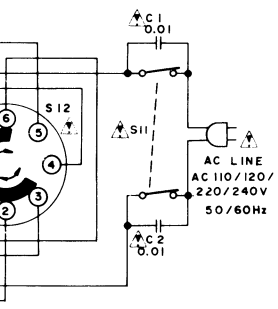
2SA1112, 2SC2592
2SB750, 2SD836



2SA722, 2SC1328
2SA777, 2SC1509
2SA921, 2SC1815
2SA999L, 2SC1885
2SA1015, 2SC1980
2SA1123, 2SC2631



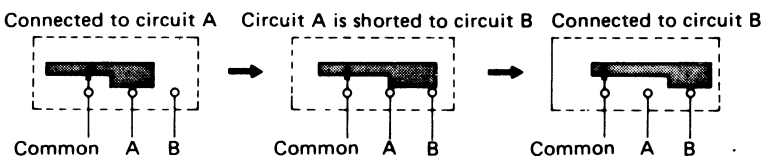




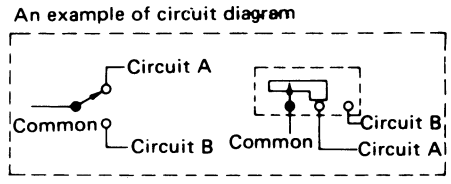
Shorting Switch

This unit uses a shorting switch. As illustrated below, the circuit is shorted to the next circuit without being opened.

In the circuit diagram, the shaded area represents the common terminal.

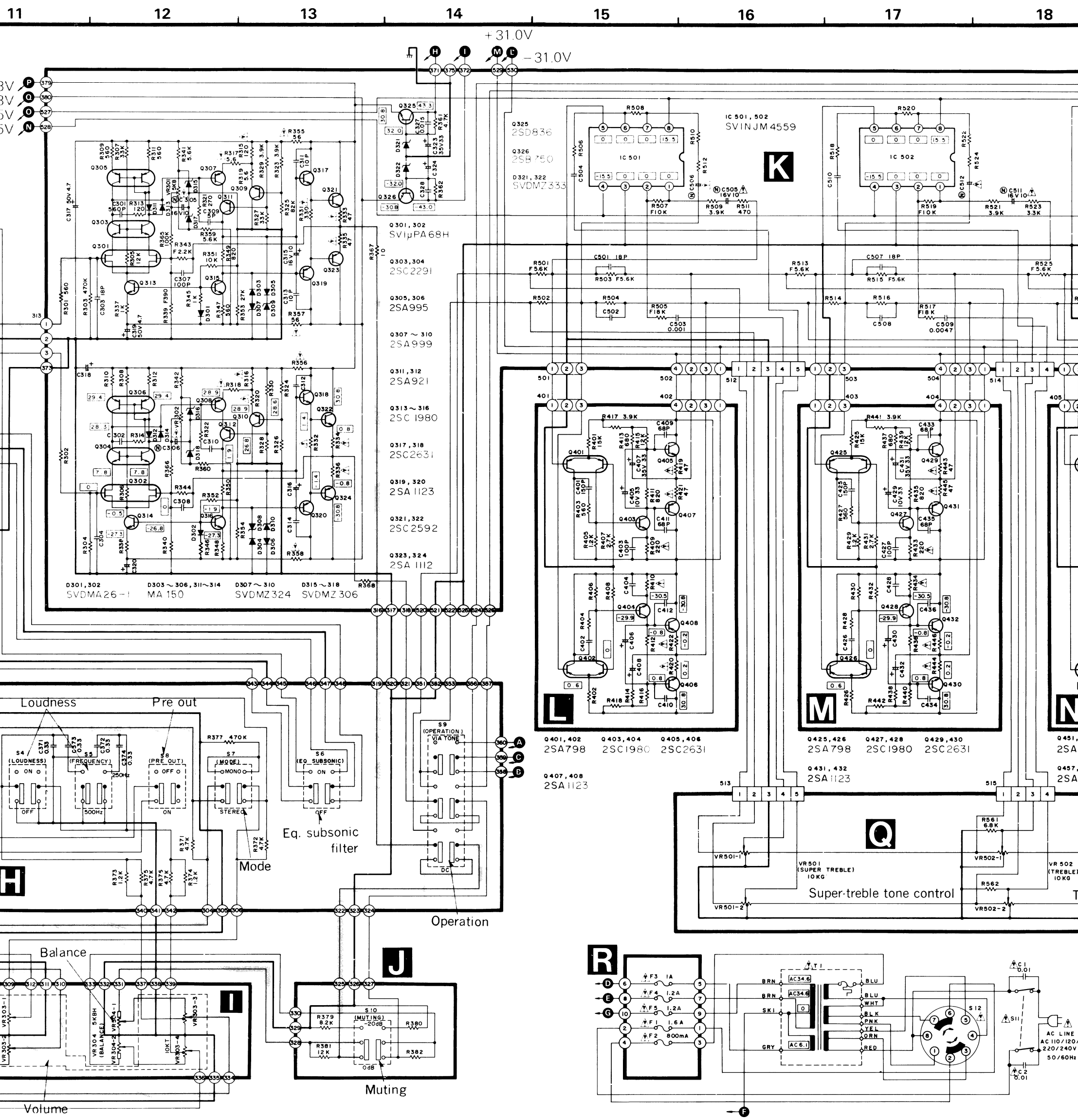


An example of circuit diagram



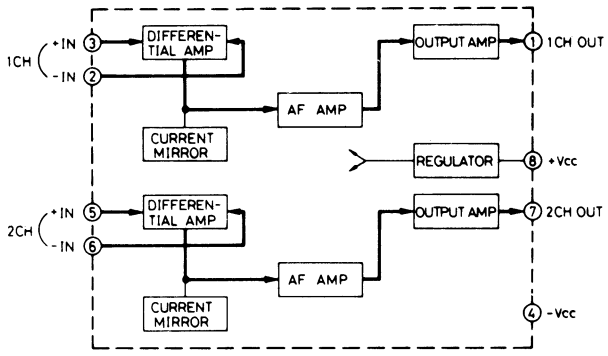
Notes:

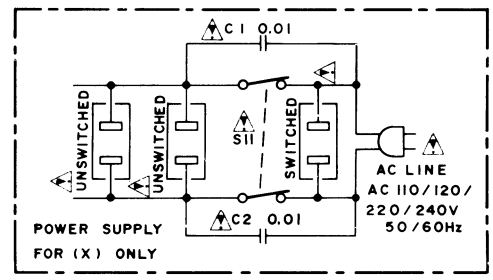
1. **S1** : Phono selector switch in "**phono 1 MM**" position.
   ① phono 1 MC ⟷ ② phono 1MM ⟷ ③ phono 2MM
2. **S2** : Input selector switch in "**phono**" position.
   ① aux ⟷ ② tuner ⟷ ③ phono ⟷ ④ tape 1 ⟷ ⑤ tape 2
3. **S3** : Rec selector switch in "**off**" position.
   ① aux ⟷ ② tuner ⟷ ③ phono ⟷ ④ off ⟷ ⑤ tape dubbing 1 ▶ 2 ⟷ ⑥ tape dubbing 2 ▶ 1
4. **S4** : Loudness switch in "**off**" position.
5. **S5** : Loudness frequency selector switch in "**500 Hz**" position.
   500 Hz ⟷ 250 Hz
6. **S6** : Equalizer subsonic-filter switch in "**off**" position.
7. **S7** : Mode switch in "**stereo**" position.
   stereo ⟷ mono
8. **S8** : Pre out switch in "**on**" position.
9. **S9** : Operation switch in "**DC**" position.
   DC ⟷ via tone
10. **S10** : Muting switch in "**0 dB**" position.
11. **S11** : Power switch in "**on**" position.
12. **S12** : Voltage adjustment switch in **"240V"** position.
13. ⚠ Indicates that only parts specified by the manufacturer be used for safety.
14. ▭ Indicated voltage values are the standare values for the DC electronic circuit tester (high impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.
15. ····· Phono signal lines of left channel
16. ▬▬ Positive (+B) voltage lines.

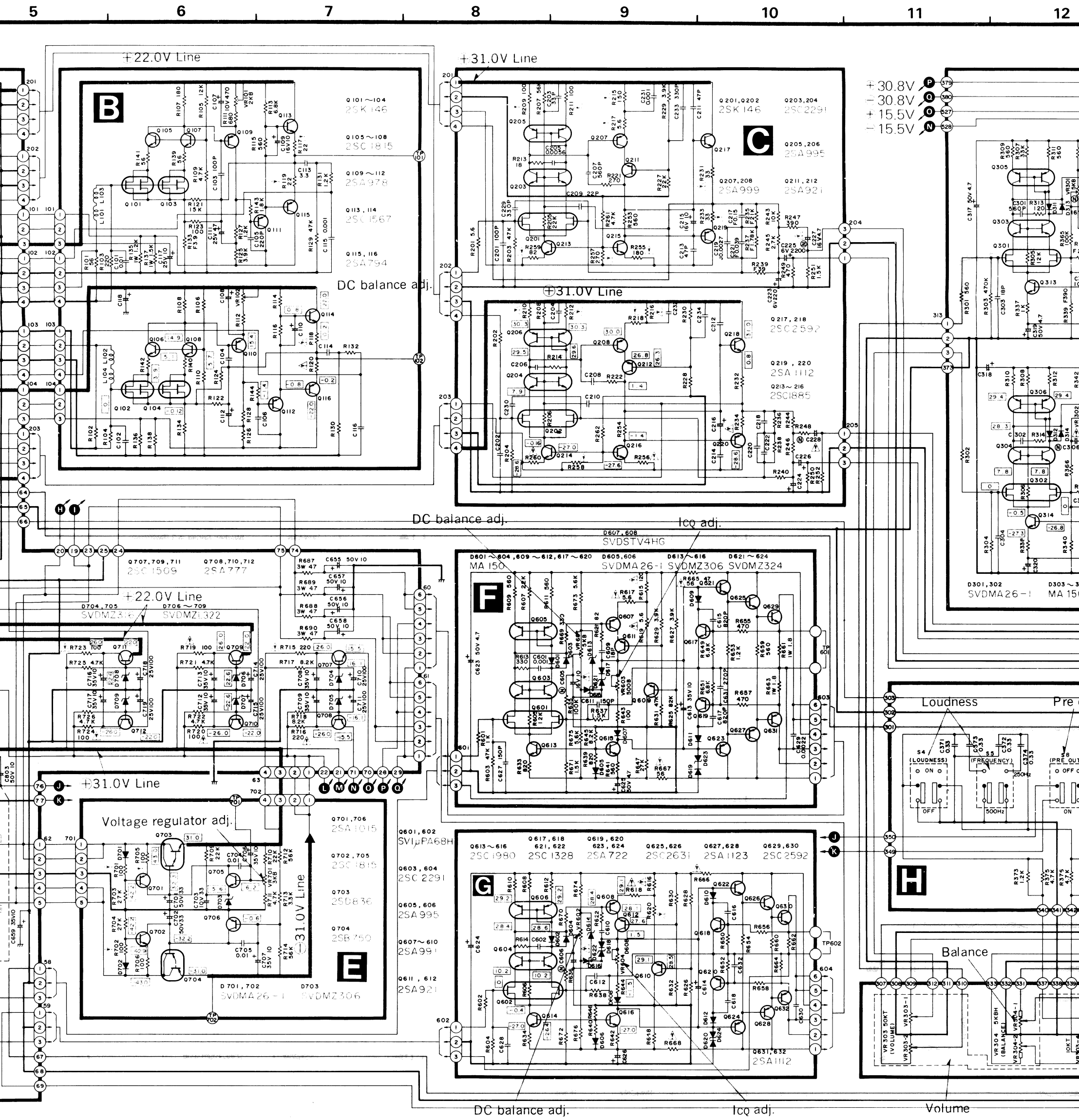


BLOCK DIAGRAM OF IC

IC501, 502 (SVINJM4559)
IC503~507 (AN6552)





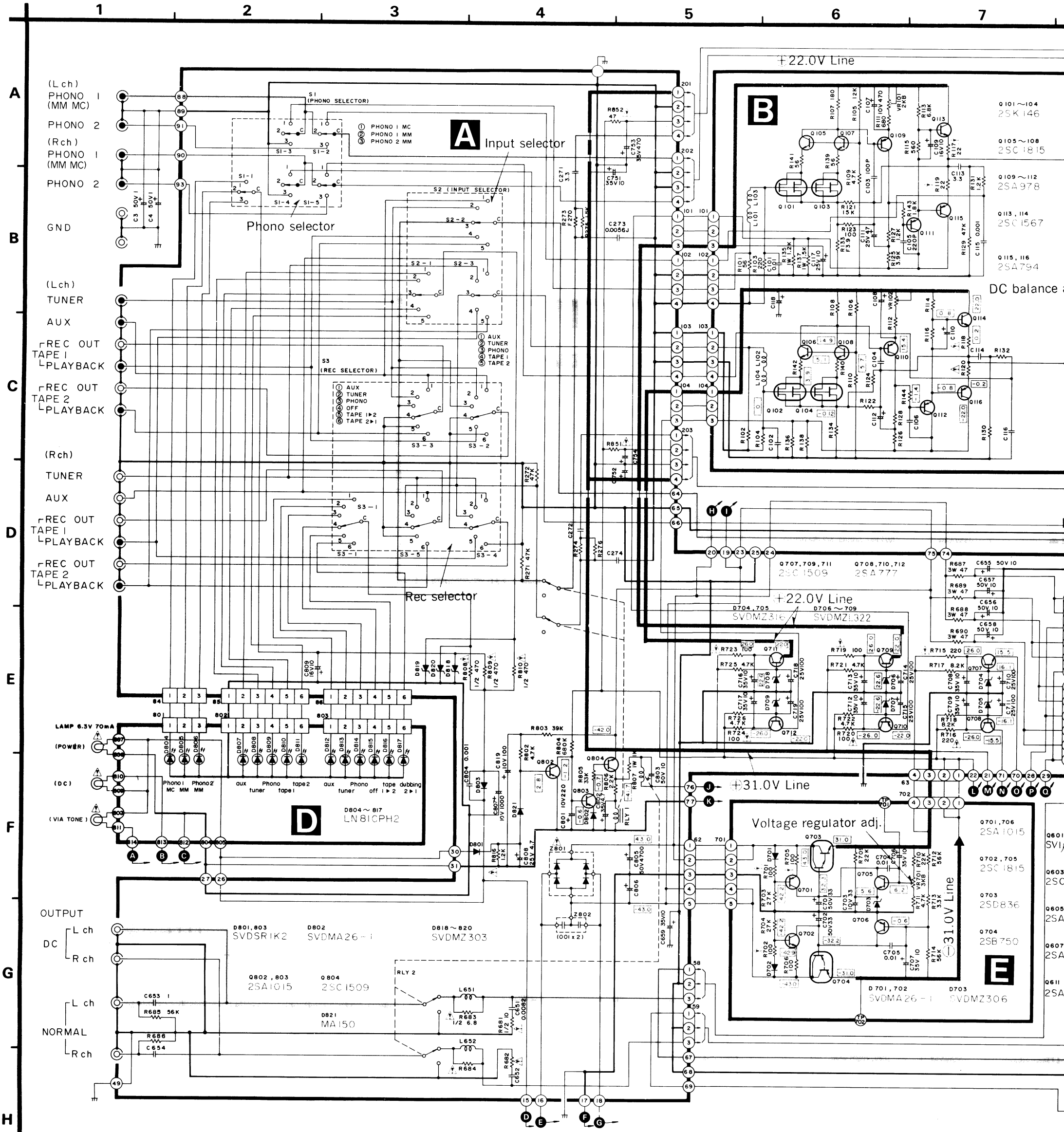


■ BLOCK DIAGRAM OF

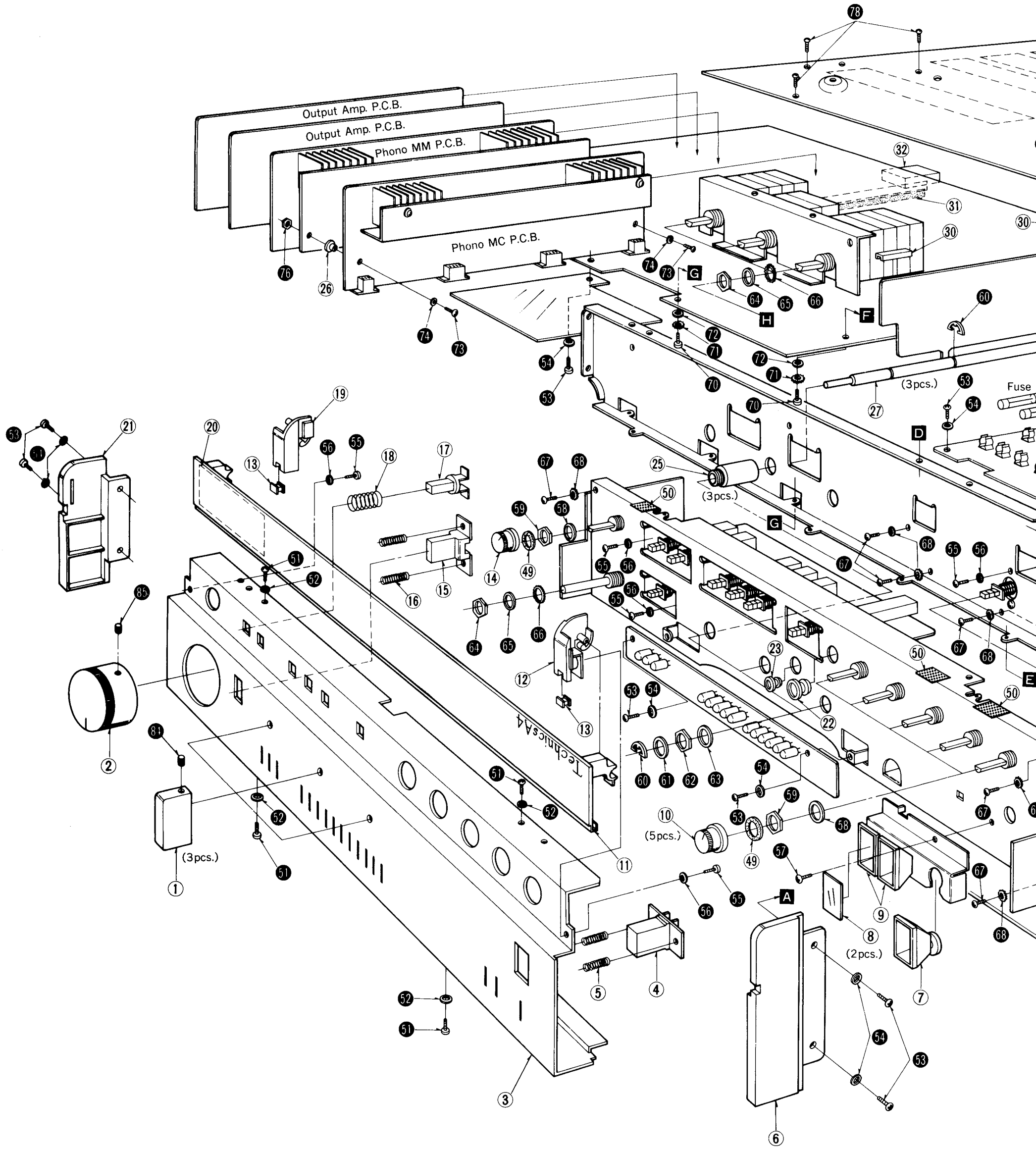
IC501, 502 (SVINJM45
IC503~507 (AN6552)

■ SCHEMATIC DIAGRAM..... MODEL **SU-A4K**

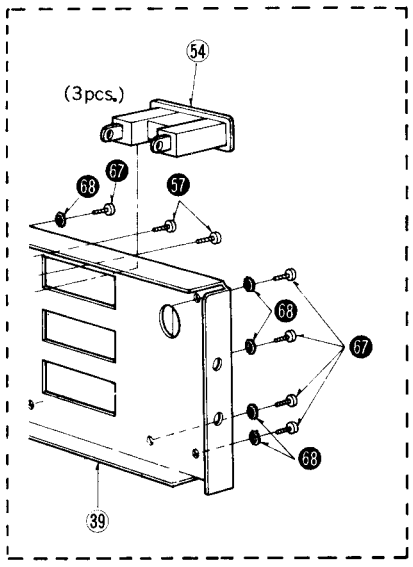
(This schematic diagram may be modified at any time with the development of new technology.)

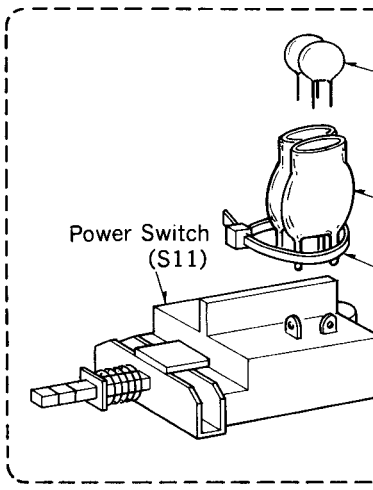


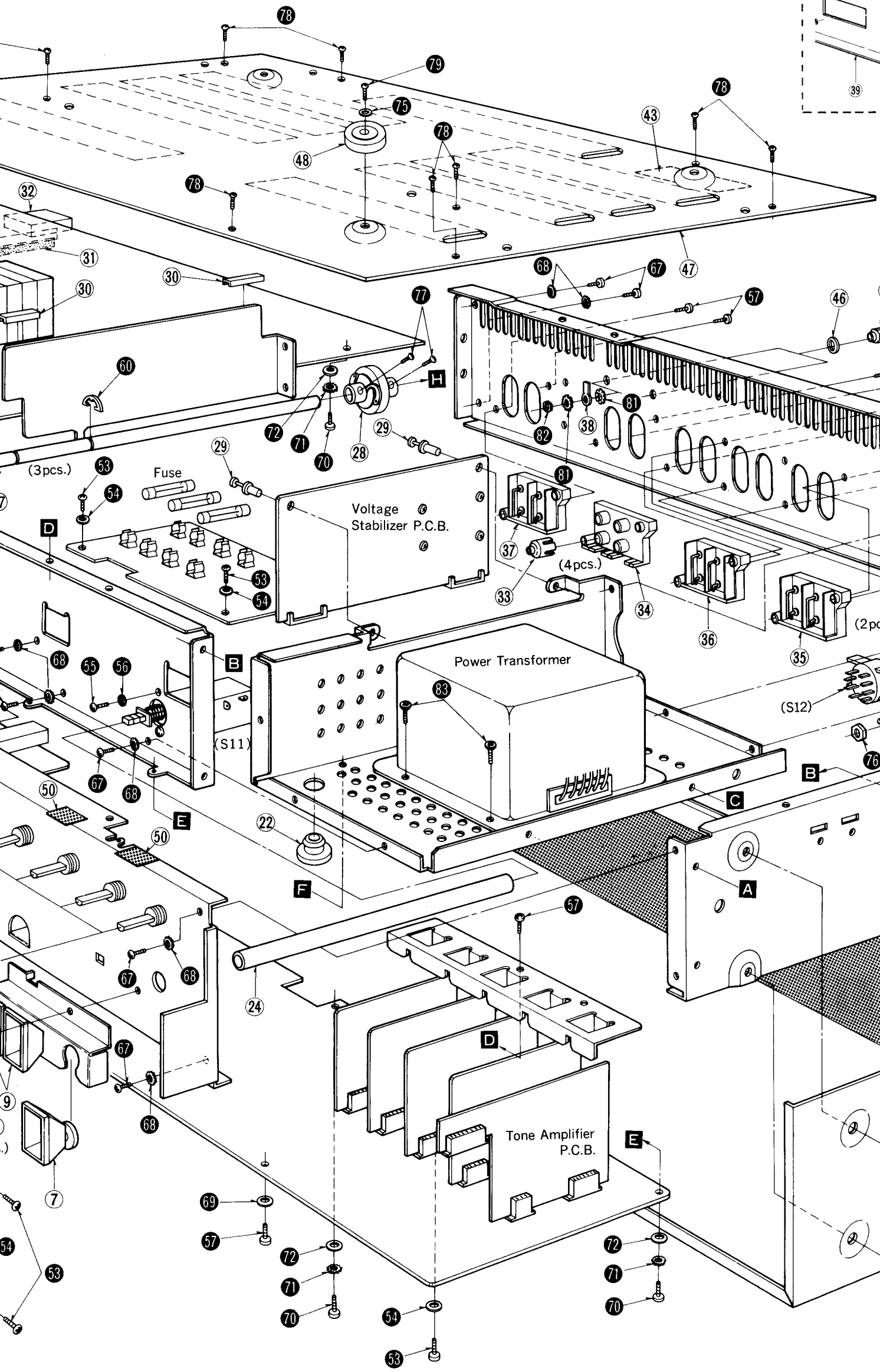
■ EXPLODED VIEWS

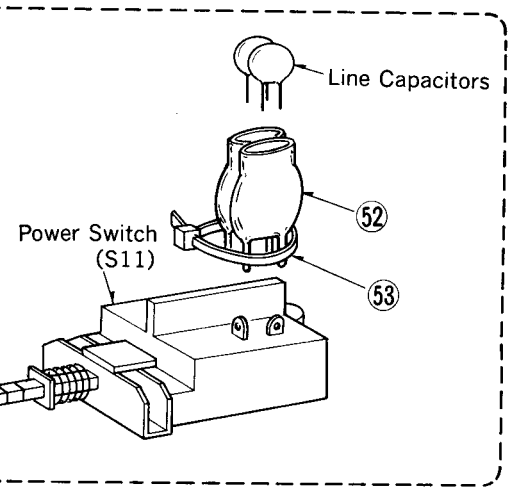


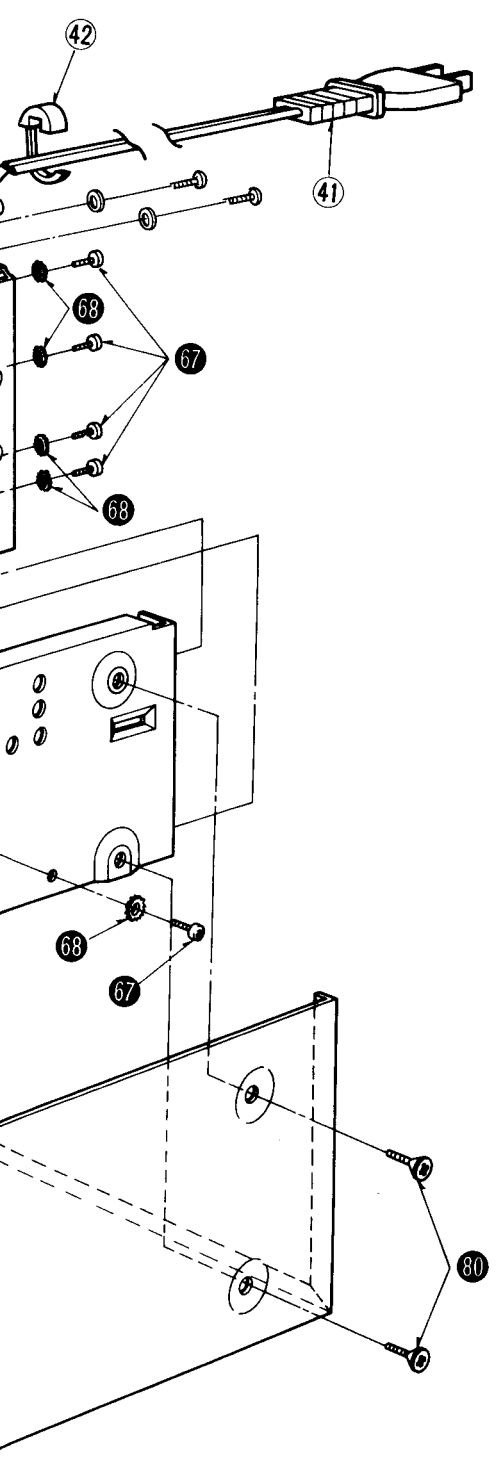
REAR PANEL (Products for [XA] only)











■ REPLACEMENT PARTS LIST (Cabinet and Chassis Parts)

Notes: 1. Part numbers are indicated on most mechanical parts. Please use this part number for parts orders.
2. ⚠ indicates that only parts specified by the manufacture be used for safety.
3. Bracketed indications in Ref. No. columns specify the area. Parts without these indications can be used for all areas.

Ref. No.		Part No.	Part Name & Description
CABINET and CHASSIS PARTS			
1		SBN903–2	Knob, Phono Selector, Input Selector & Rec Selector
2		SBN905–1	Knob, Volume Control
3		SGWUA4N	Panel, Front Ass'y
4		SBC261	Button, Power Switch
5		SUS193	Spring, Power Switch
6		SGX6791	Ornament, Front Panel
7		SHG1081	Rubber Bracket, Power Indicator
8		SDE249	Filter, Operation Indicator
9		SHG1383–1	Rubber Bracket, Operation Indicator
10		SBN907–1	Knob, Tone Controls
11		SGWUA4KE	Panel, Front Panel (Door)
12		SBH9185	Hinge, Front Panel (Door)
13		SHG1553	Rubber Cushion, Hinge
14		SBN907–1	Knob, Balance Control
15		SBC219–1	Button, Audio Muting Switch
16		SUS159	Spring, Audio Muting Switch
17		SBC263	Button, Push Switches
18		SUS123–2	Spring, Push Switches
19		SBH9187	Hinge, Front Panel (Door)
20		SGK1461–1	Label, Operation
21		SGX6789	Ornament, Front Panel
22		RHR110	Bushing, Lead Wire
23		RHR109	Bushing, Lead Wire
24		SUB43	Coupling Rod, Power Switch
25		SDX265–2	Mounting, Shaft
26		SHR9339	Spacer, Phono MC Amplifier P.C.B.
27		SUB41–1	Shaft, Selector Switches
28		SUB45	Coupler, Selector Switches Shaft
29		SHR401–1	Latch, P.C.B. M'tg
30		SHG1379–3	Rubber Cushion
31		SHG1511–1	Rubber Cushion
32		SHG6013–1	Rubber Cushion
33		SJP1103–1	Pin Plug, Phono Input Terminal
34		SJF2431SA	Terminal, Phono
35		SJF3431–1SA	Terminal, Tape 1 and Tape 2
36		SJF3431SA	Terminal, Tuner and Aux
37		SJF3431A	Terminal, Output
38		RJT204A	Lug, Earth Terminal
39 [E] only		SGP2170–2A	Rear Panel
39 [XA] only		SGP2170–3A	Rear Panel
39 [Other Areas]		SGPUA4KG	Rear Panel
40		SKCUA4N	Cabinet
41 [Other Areas]	⚠	**SJA88**	AC Cord, Power Source
41 [XE] only	⚠	**QFC1205M**	AC Cord, Power Source
41 [XA] only	⚠	SJA121	AC Cord, Power Source
42 [XE] only		SHR129	Bushing, AC Cord
42 [Other Areas]		SHR127	Bushing, AC Cord
43		SMX371	Sheet, Shield
44		SNEA204–1S	Terminal, Earth (GND)
45		SNE4017–1	Terminal, Earth (GND)
46		SNTA421–1	Washer, Earth Terminal
47		SKU8290–1	Bottom Board
48		SKL247	Foot
49		SHG1567	Cover, Volume
50		SHR5039	Spacer, Volume Cover
51		SJR205	Terminal, 2 Pin (Except [XA])
52		SMXA65	Cover, Line Capacitors
53		SHR301	Clamper, Wire
54 [XA] only	⚠	SJSA66–2	Socket, AC Outlets

Ref. No.		Part No.	Part Name & Description
SCREWS, NUTS and WASHERS			
61		**XSN3+8BVS**	Screw, ⊕ 3 + 8 (Front Panel)
62		**XWA3B**	Washer, Spring, ϕ 3 (Front Panel)
63		**XTV3+8BFZ**	Screw, ⊕ 3 + 8
64		**XWG3FZ**	Washer, Plain, ϕ 3
65		**XSN3+6S**	Screw, ⊕ 3 + 6 (Switches)
66		**XWA3B**	Washer, Spring, ϕ 3 (Switches)
67		**XTB3+8BFZ**	Screw, Tapping, ⊕ 3 + 8
68		**XWA8B**	Washer, Spring, ϕ 8
69		**XNS8**	Nut, M8
70		**XUC5FT**	Circlip
71		SNE81	Washer
72		**XNS9**	Nut, M9
73		SNE31	Washer
74		**XNS8**	Nut, M8
75		**XWA8B**	Washer, Spring, ϕ 8
76		**XWC8B**	Washer, Toothed Lock, ϕ 8
77		**XTB3+8BFZ**	Screw, Tapping, ⊕ 3 + 8
78		**XWC3B**	Washer, Toothed Lock, ϕ 3
79		SNW429–1	Washer
80		**XTB3+8BFN**	Screw, Tapping, ⊕ 3 + 8
81		**XWC3B**	Washer, Toothed Lock ϕ 3
82		**XWG3FN**	Washer, Plain, ϕ 3
83		**XSN3+10S**	Screw, ⊕ 3 + 10
84		**XWA3B**	Washer, Spring, ϕ 3
85		**XWG3FZ**	Washer, Plain, ϕ 3
86		**XNG3ES**	Nut, M3
87		XXAS3K5S	Screw, (Coupler)
88		**XTB3+8BFZ**	Screw, Tapping, ⊕ 3 + 8
89		**XTB3+10BFZ**	Screw, Tapping, ⊕ 3 + 10
90		XSS5+12F1S	Screw, ⊕ 5 + 12 (Cabinet)
91		**XWC4B**	Washer, Toothed Lock, ϕ 4
92		**XNG4ES**	Nut, M4 (Earth Terminal)
93		**XTB4+8BFZ**	Screw, Tapping, ⊕ 4 + 8
94		XXE3D5FZ	Screw, (Selector Knob)
95		XXE4D5FZ	Screw, (Volume Control Knob)
ACCESSOIRES			
A1		SJP2237–1	Cord, Stereo Pin-Type Connection
A2 [XA] only	⚠	RJP74–1	Plug Adaptor, AC Power
A3 [XA] only	⚠	RJP75	Plug Adaptor, AC Power
PACKING PARTS			
P1		SPP661	Polythylene Bag
P2		SPE313	Pad, Front Panel (Door)
P3		SPE315	Pad, AC Cord
P4		SPJ15	Polyethylene Bag (AD Plug)
P5		SPS2567–1	Pad, Left Side
P6		SPS2569–1	Pad, Right Side
P7		SPS2813	Pad, Top Side
P8		SPG2699	Carton Box
P8 [XGF] only		SPG2689	Carton Box
P9		SQF10567	Instructions Book, Printed Matter
P9 [XA] only		SQF10575	Instructions Book, Printed Matter

Areas

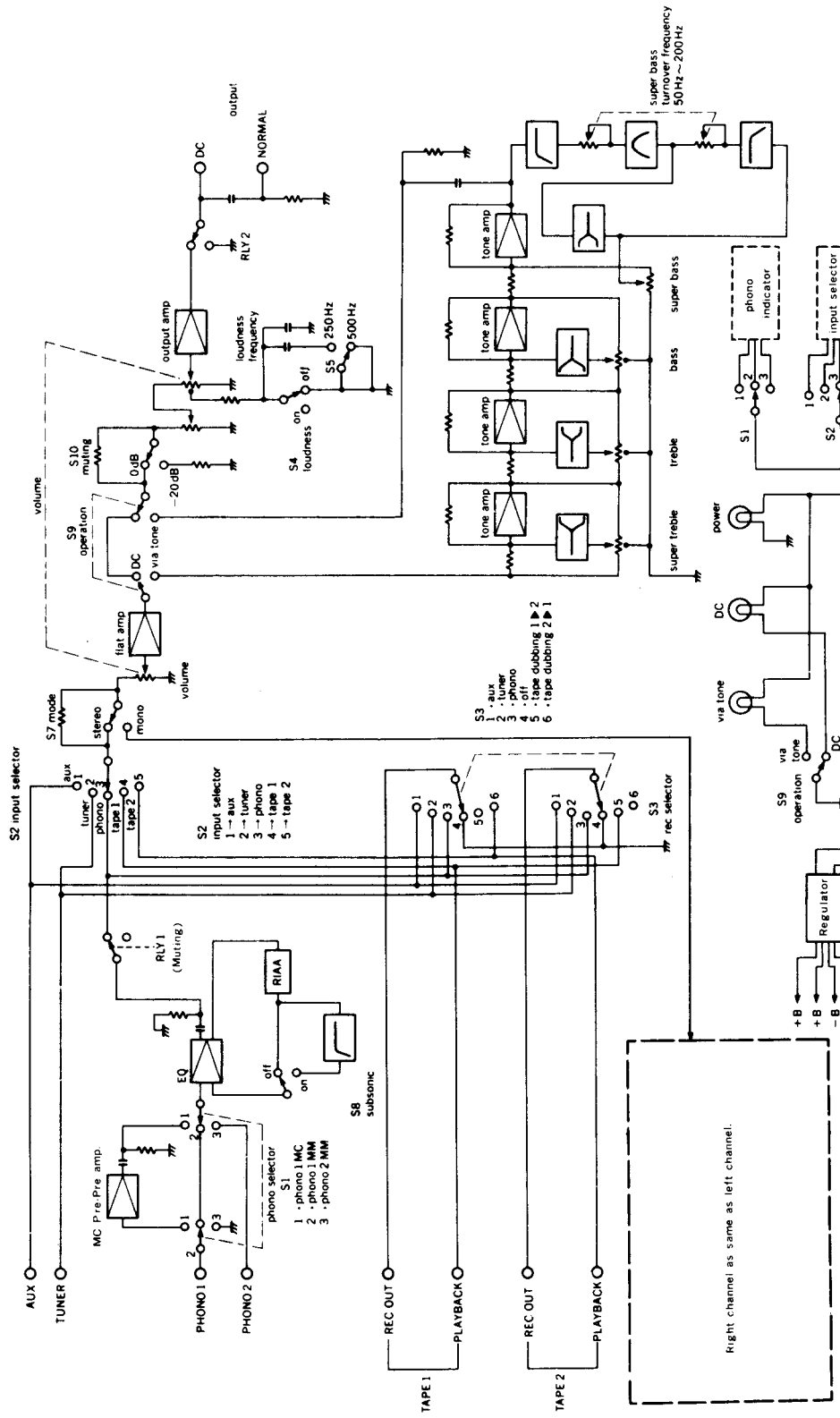
* [E] and [EG] are available in Scandinavia and European except Belgium, United Kingdom, Switzerland, Holland and France.
* [EB] is available in Belgium.
* [XE] is available in United Kingdom.
* [XGH] is available in Holland.
* [XGF] is available in France.
* [XA] is available in Asia, Latin America, Middle East and Africa.

binet and Chassis Parts)

. Please use this part number for parts orders.
cture be used for safety.
e area. Parts without these indications can be

Ref. No.		Part No.	Part Name & Description
SCREWS, NUTS and WASHERS			
❶		**XSN3+8BVS**	Screw, ⊕ 3 + 8 (Front Panel)
❷		**XWA3B**	Washer, Spring, ϕ 3 (Front Panel)
❸		**XTV3+8BFZ**	Screw, ⊕ 3 + 8
❹		**XWG3FZ**	Washer, Plain, ϕ 3
❺		**XSN3+6S**	Screw, ⊕ 3 + 6 (Switches)
❻		**XWA3B**	Washer, Spring, ϕ 3 (Switches)
❼		**XTB3+8BFZ**	Screw, Tapping, ⊕ 3 + 8
❽		**XWA8B**	Washer, Spring, ϕ 8
❾		**XNS8**	Nut, M8
❿		**XUC5FT**	Circlip
❶		SNE81	Washer
❷		**XNS9**	Nut, M9
❸		SNE31	Washer
❹		**XNS8**	Nut, M8
❺		**XWA8B**	Washer, Spring, ϕ 8
❻		**XWC8B**	Washer, Toothed Lock, ϕ 8
❼		**XTB3+8BFZ**	Screw, Tapping, ⊕ 3 + 8
❽		**XWC3B**	Washer, Toothed Lock, ϕ 3
❾		SNW429–1	Washer
❿		**XTB3+8BFN**	Screw, Tapping, ⊕ 3 + 8
❶		**XWC3B**	Washer, Toothed Lock ϕ 3
❷		**XWG3FN**	Washer, Plain, ϕ 3
❸		**XSN3+10S**	Screw, ⊕ 3 +.10
❹		**XWA3B**	Washer, Spring, ϕ 3
❺		**XWG3FZ**	Washer, Plain, ϕ 3
❻		**XNG3ES**	Nut, M3
❼		XXAS3K5S	Screw, (Coupler)
❽		**XTB3+8BFZ**	Screw, Tapping, ⊕ 3 + 8
❾		**XTB3+10BFZ**	Screw, Tapping, ⊕ 3 + 10
❿		XSS5+12F1S	Screw, ⊕ 5 + 12 (Cabinet)
❶		**XWC4B**	Washer, Toothed Lock, ϕ 4
❷		**XNG4ES**	Nut, M4 (Earth Terminal)
❸		**XTB4+8BFZ**	Screw, Tapping, ⊕ 4 + 8
❹		XXE3D5FZ	Screw, (Selector Knob)
❺		XXE4D5FZ	Screw, (Volume Control Knob)
ACCESSOIRES			
A1		SJP2237–1	Cord, Stereo Pin-Type Connection
A2 [XA] only	⚠	RJP74–1	Plug Adaptor, AC Power
A3 [XA] only	⚠	RJP75	Plug Adaptor, AC Power
PACKING PARTS			
P1		SPP661	Polythylene Bag
P2		SPE313	Pad, Front Panel (Door)
P3		SPE315	Pad, AC Cord
P4		SPJ15	Polyethylene Bag (AD Plug)
P5		SPS2567–1	Pad, Left Side
P6		SPS2569–1	Pad, Right Side
P7		SPS2813	Pad, Top Side
P8		SPG2699	Carton Box
P8 [XGF] only		SPG2689	Carton Box
P9		SQF10567	Instructions Book, Printed Matter
P9 [XA] only		SQF10575	Instructions Book, Printed Matter

■ BLOCK DIAGRAM



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